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ABSTRACT

Designed as a resource for implementing the Wisconsin Guide to Local Curriculum Improvement in Industrial Education, K-12, this handbook is intended to aid industrial educators in developing and incorporating values and attitudes in their programs. The first section presents a values rationale to provide a set of ideas to use in developing a statement for local use. The next section contains a variety of activities and strategies for examining and clarifying values, attitudes, and feelings in industrial education. First, some commonly used strategies for values and attitudes activities are summarized. Then a list of value and conflict problems is suggested for several traditional industrial arts concentrations to which the strategies may be adapted. Finally, some activities are provided which represent the strategies described, including value sheets, values continuum, rank ordering, values voting, role playing, questionnaire making and taking (attitude inventories), goal sheets, alternatives search, unfinished sentences, self/peer-evaluation, and simulation. Activities may be used as is, adapted by teacher, or used as models. The final section of the handbook includes listings of resources such as articles, resources, films, duplicating masters, kits, and tape programs. (YLB)

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HANDBOOK

CE 028 390

THE WISCONSIN GUIDE TO
LOCAL CURRICULUM IMPROVEMENT
IN INDUSTRIAL EDUCATION, K-12

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PREFACE

This handbook is intended to aid industrial educators in developing values and attitudes activities into their programs. The Values and Attitudes Handbook is not a course of study, but rather a resource to aid in local improvement. It is designed to be used by educators to aid them in implementing The Wisconsin Guide to Local Curriculum Improvement in Industrial Education, K-12.

The content outlines, models, structures and activities can be utilized for courses, specific units or for integrating values and attitudes concepts throughout the industrial education program.

The materials included in this handbook come from a number of excellent resources that have been developed to improve values and attitude education. Where the sources were known credit is given for inclusion.

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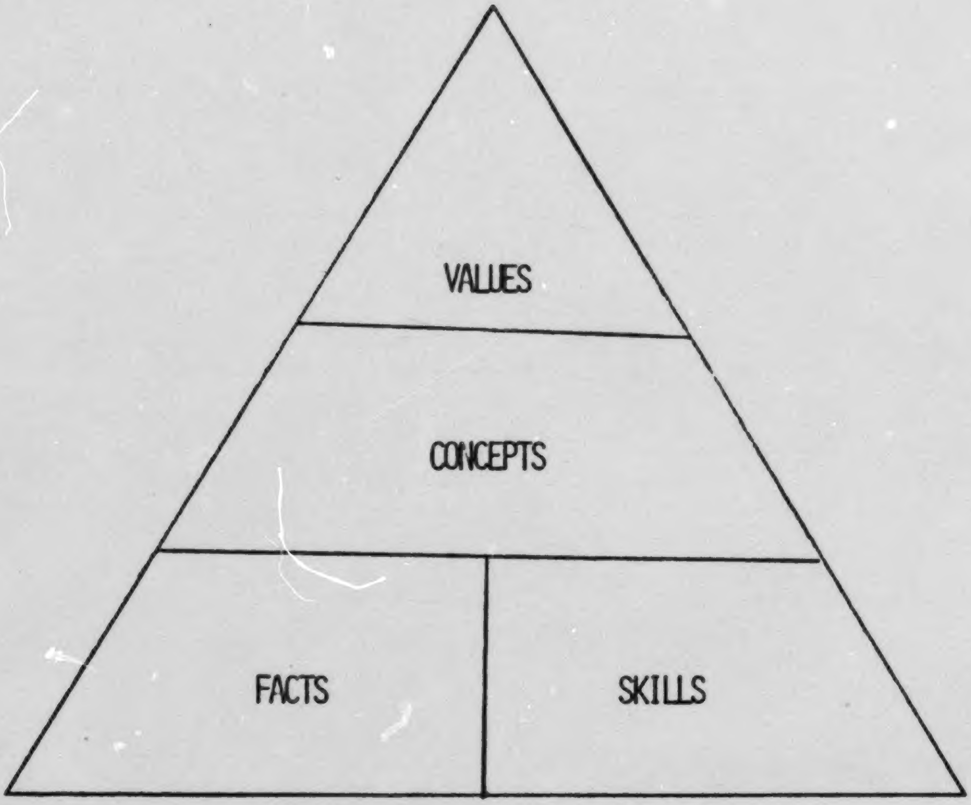
VALUES & ATTITUDES


VALUES
CONCEPTS
FACTS
SKILLS

RATIONALE:

A rationale is a reason for existence or prepared action. In curriculum development it answers the key question of "why" something is taught.

A rationale is thus a justification statement which highlights the importance of the program, course or unit which it is directed at.

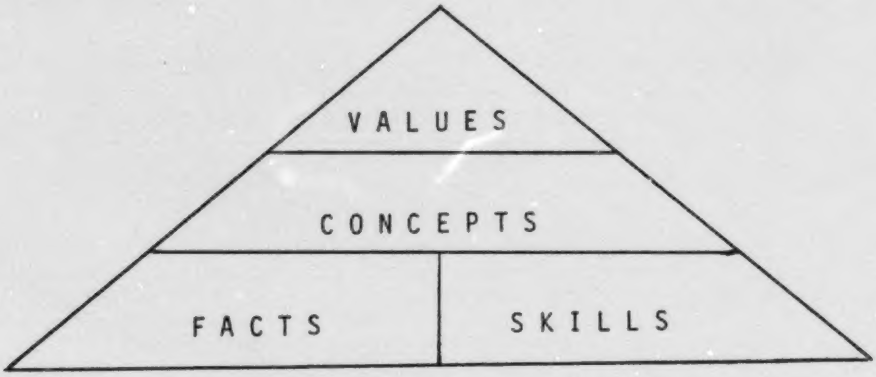
The statement is generally short, concise and directly to the point. The rationale that follows in this resource handbook provides the user with a set of ideas to use in developing a statement for local use.

VALUES RATIONALE

Technology represents the means but not the cause by which we alter our environment - our values determine the choices we make in creating and performing technological, industrial activity. For this reason Industrial Arts content is value laden, and one of its prime functions, along with the teaching of basic skills, is bringing students to an awaremess of the technological value choices that reflect upon their lives and society. Industrial Arts teachers have long recognized the teaching of positive attitudes, such as good work habits, cooperation on the job, pride in workmanship, as part of their mission. A further dimension, perhaps not as openly discussed, is the significant contribution that Industrial Arts makes in promoting the self-growth capacity of the individual by fulfilling a basic human need to create and participate in some sort of physical object making. Eric Erickson, a respected child psychologist, believes that all children "....sooner or later, become dissatisfied and disgruntled without a sense of being able to make things and make them well and even perfectly. . . ."

Most teachers want their students to be able to internalize the important aspects of whatever is being taught. However, a bridge must be provided connecting facts and skills with the student's personal values, because the value level of learning always involves the application or extension of facts and concepts to the life of the individual. Many of the value needs of the individuals and society, such as, awareness of potential career choices, confidence in one's ability to perform a task well, consumer evaluation of the quality of goods and services, concern over environmental issues, and the choices these attitudes imply, can be seen to naturally evolve out of Industrial Arts content.

The values component of any content area can be described as those facts or skills that touch upon a student's personal beliefs, and involve making a choice in order to achieve resolution. The following diagram illustrates the basic pyramidal structure existing between facts/skills, concepts and values.



An example from Graphic Arts demonstrates the integration of these three elements. On the skills level students learn and practice the steps involved in developing a finished layout for an advertisement. Conceptually they begin to consider individual design components and their collective relationship in achieving over-all effectiveness. In developing the values, inquiry level student are asked to respond to such questions as: What responsibility does the designer have for the content of an ad? Would you design an ad for a product you do not think should be sold? Or; does everything portrayed in an ad have to be true?

A relatively easy approach for a teacher to take in providing the values inquiry level is to adapt values clarification strategies to fit content areas. No major course changes are required. All that is necessary is an understanding of general concepts and the identification of potential values questions within course content and class setting.

The exact approach and the extent to which it is utilized remains up to the individual instructor. Some may prefer to use only a few strategies, such as, rank ordering and continuums, at specific intervals. Others may be much more spontaneous using clarification techniques whenever they feel a values issue is involved. Still others may teach totally around values. Undoubtedly all approaches can be successful.

Briefly values clarification can be described as a process of teaching the following skills:

1. Being aware of one's own preferences and valuation.
2. Making choices on one's own without depending on others.
3. Being aware of and choosing from alternatives.
4. Looking ahead to probable consequences when choosing.
5. Acting on one's choices and preferences.
6. Acting with pattern and consistency.

Recognizing that student-teacher inter-personal relationships as well as role modeling by the teacher have major impact in promoting and developing values, it is the goal of this handbook to supplement these basic methods with examples of strategies that may be adapted for use in any industrial arts content area in order to extend Industrial Arts instruction to include the values component inherent in its content.

LEARNING ACTIVITIES:

The ultimate success of any program centers in the quality of the instruction that takes place. Central to this success is the quality of the teaching and learning activities that are used in meeting stated objectives.

Industrial education programs have always focused on the laboratory approach of "learning by doing." The ideas for teachers and the learning activities for students that are included in this handbook were selected as exemplary learning experiences.

Industrial education programs should be exciting, relevant and action oriented. Well designed activities, selected from a variety of sources, that motivate students are included as suggestions for improving instruction.

GUIDE TO THE USE OF VALUES/ATTITUDE ACTIVITIES

This section of the Handbook presents a variety of activities and strategies for examining and clarifying values, attitudes, and feelings in industrial education. Those presented here are in no way exhaustive and teachers are encouraged to develop or adopt their own activities. Regardless of the method a teacher uses, effective values teaching can occur only in a trusting classroom climate. To promote an open valuing environment the following suggestions should be remembered:

1. THE TEACHER SHOULD BE ACCEPTING AND NON-JUDGEMENTAL.

   This requires that the teacher understand that values-related questions cannot be answered as "yes" or "no".

2. DIVERSITY OF OPINIONS AND VALUE PRIORITIES SHOULD BE ACCEPTED AND NOT CENSURED IN THE CLASSROOM.

3. THE TEACHER MUST ACCEPT THE STUDENT'S RIGHT TO NOT PARTICIPATE IN A VALUE CLARIFYING PROCESS.

   The right to privacy is an important consideration.

4. RESPONSES TO VALUES ACTIVITIES SHOULD BE RESPECTED.

   The ability to affirm a value may be put in jeopardy if the individual is put on the defensive.

5. STUDENTS WHO CHOOSE TO PARTICIPATE SHOULD BE ENCOURAGED TO RESPOND HONESTLY.

6. LIMIT QUESTIONS WHICH THREATEN OR LIMIT THINKING.

   Especially to be avoided is a preponderance of "yes-no" questions.

7. INCLUDE QUESTIONS THAT RELATE TO BOTH PERSONAL AND SOCIAL CONCERNS.

Values and attitude activities have been developed by many people in many disciplines. The following strategies summarized by Hillestad are the more commonly used today.

VALUE SHEETS

Purpose. This is a strategy which seeks to evoke value responses from students following introduction to a value-related issue, situation, or problem. The item may involve a newspaper article, a poem, an object, or some other such item.

VALUES CONTINUUM

Purpose. This simple strategy helps identify the range of value positions that might occur on some issue or problem and then allows an individual to affirm his or her own stand on the issue. The extreme positions are first identified and represented on opposite ends of a line placed on the chalk board or drawn on student paper. Students then affirm their stand by signifying their position on the line.

RANK ORDERING

Purpose. Words or statements representing issues, values, concerns, problem solutions, etc., are placed on the chalk board or on handouts and the students are asked to rank the words or statements in order of preference. Discussion can follow.

VALUES VOTING

Purpose. This is a simple technique for allowing students to affirm their position on some issue by asking them to raise a hand if they would support the question presented. Class discussion can follow.

NOT ENOUGH/ENOUGH/MORE THAN ENOUGH

Purpose. This strategy helps students clarify values or feelings about what they consider is an appropriate amount of time, money, energy, etc., that an activity or situation warrants.

"I LEARNED" STATEMENTS

Purpose. This strategy helps the student focus on what an activity or discussion meant to him/her. Following some classroom activity, students are sked to write "I learned..." statements of what they learned about themselves and how they interact with the social and physical environment. The statements may relate to the subject matter or to ways the student interacted with other students, the teacher, or tools and machinery.

ROLE PLAYING

Purpose. The dynamics of interpersonal situations can be viewed clearly with this activity. A hypothetical or historical situation involving a conflict of values or power is presented to the class which is divided into small groups. Each person in a group is then asked to play the part of one of the situation personalities. The task of each group is to resolve the issue at hand.

QUESTIONNAIRE MAKING AND TAKING

Purpose. This activity can help students identify what various positions may be taken on some issue, and, consequently, where they may stand themselves in relation to the viewpoints of others. Either a current local issue or a more general problem could be selected as the basis for the questionnaire. Students could, as individuals or in small groups, propose hypotheses or expected correlations which the questionnaire would seek to prove or disprove. Once the goal of the questionnaire census is identified, students should brainstorm possible questions which might be included in the questionnaire. Following makeup of the questionnaire, the census could take place among students, community citizens, parents, or businesses. Results of the survey would be tabulated by the students and interpretations made in class discussion. Conclusions could then be published in school or community newspapers.

GOAL SHEETS

Purpose. This technique should help students learn to accept greater responsibility for their own learning. It is something that can be used in any subject matter area. The Goal Sheet should allow students to *choose* what they feel is worth learning and guide them in *acting* to achieve their goals. The time period over which the goal or goals may be achieved can be a year, a semester, a week, or a class period.

ALTERNATIVES SEARCH

Purpose. This strategy should help students see that values and actions can be chosen from various alternatives. A frequent human reaction when a problem presents itself is to adopt the first or most traditional solution, although it may not be the simplest or best remedy.

UNFINISHED SENTENCES

Purpose. This strategy asks students to complete unfinished sentences, thereby indicating some of the values which students hold. Students tell or write their responses to sentence stems which appear on the chalk board or on handouts and then participate in a discussion.

SELF/PEER-EVALUATION

Purpose. Most students are accustomed to having teachers judge their projects, activities, and performance without input from the students. The students too often ask the teacher "Is it good enough?" rather than asking themselves "Is it good?" Self and peer evaluation promotes the setting of students' values relative to their own performance.

SIMULATION

Purpose. Simulation games, which incorporate teamwork and cooperative strategies, allow and encourage students to work together toward their goals. This contrasts with many classroom situations in which competition pits each student against the other. Simulation games not only provide a situation in which students may help each other to learn, but they may also help students to look at each other in new ways. Opportunities to discuss and share a common problem, on an equal footing, may help in the development of a better self-image and improved self-confidence.

The strategies listed above may be adapted to almost any curriculum area. To facilitate any such endeavor for Industrial Arts, the following list of value and conflict problems is suggested for several of the traditional Industrial Arts concentrations.

MATERIALS AND PROCESSES

Desirability of solid lumber versus processed materials such as plywood and particle board.

Use of forests for lumber and paper versus other uses such as recreation, preserved habitat, etc.

Plastic versus wood in furniture and cabinetry.

Differences between hand crafted and mass-produced furniture.

Wood versus other forms of fuel.

The ethics of companies exporting lumber for higher prices, thus causing shortages and high prices in the domestic market.

The benefits versus ill effects of using DDT for fighting the Dutch Elm disease insect.

To whom do minerals which are mined from the ocean floor belong?

Who should have responsibility for maintaining the ecological safety of oceans which are being mined?

Who should have the responsibility for controlling depletion of natural minerals?

Would you rather drink out of a metal or a glass soda container? Should your state or community ban non-returnable containers?

Should you or your community participate in the recycling of metal cans and other items?

COMMUNICATIONS AREA

How does the telephone, television, and computer affect the values of privacy and individuality?

How does instantaneous transmission of world events affect the value of "Brotherhood of Man"?

What is the impact of psychic communication phenomona on Science and other traditional views of Nature?

How important are non-verbal communication such as touching and facial expression compared with verbal communication?

Does the advertising person have any responsibility for the physical or social effects of the products that he or she promotes?

Is a letter an appropriate means of communication in today's world of the telephone, picturephone, and other technological devices?

Should government regulate the amount of sex and violence on television and in movies?

Which skill is more important for the industrial designer, sketching or mechanical drawing?

ENERGY AREA

Would it be easier to solve energy problems with new technologies, or to change social attitudes in order to lessen demand for energy?

Electric utilities charge customers less as they use increasing amounts of electric energy. Should or would this policy, if it were reversed, promote energy conservation?

What are ways which a school can save energy?

What are ways which a school shop can save energy?

Should the United States become "energy independent"?

Should government control the amount of energy people and institutions may use? Is the limit on speed for cars and trucks worthwhile? Do you obey speed limits?

ENTERPRISE AREA

Who is more responsible for safety, the worker or the employer?

How does a manufacturing company balance quality and economy?

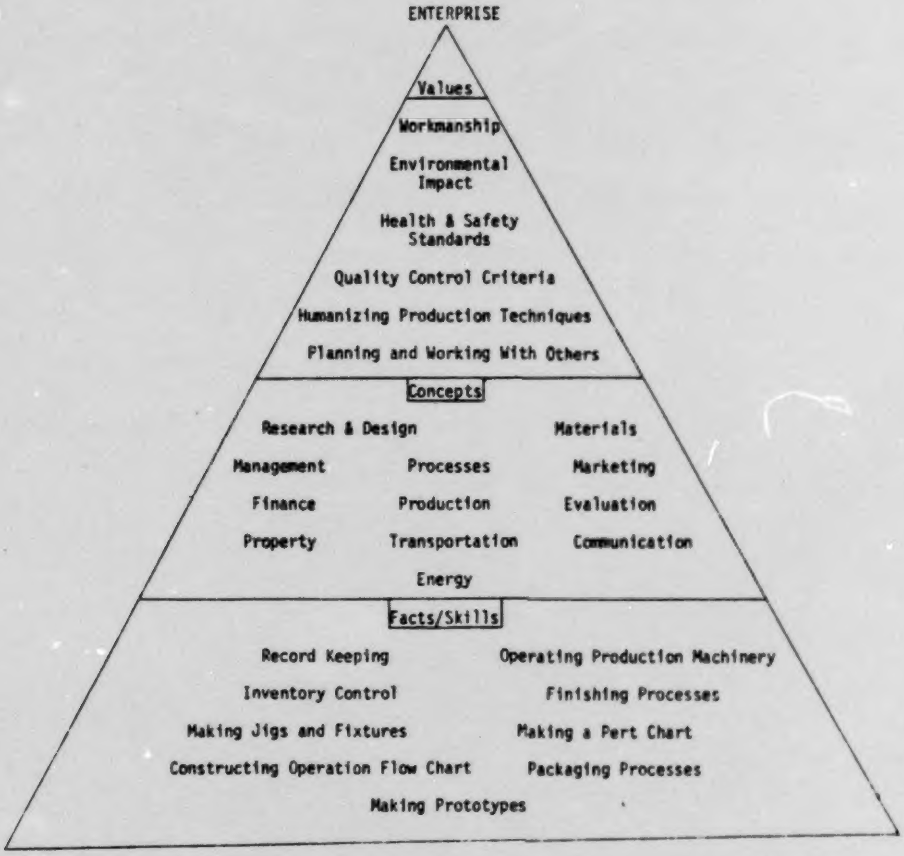
How should the cost of clean environment be balanced between public and industry?

How can an assembly line worker be motivated to work with pride and efficiency?

What is the most humanistic corporate structure?

RELATIONSHIP OF VALUES TO INDUSTRIAL ARTS CONCEPTS, SKILLS AND FACTS

The diagrams which follow are an attempt to show the relationship of facts/skills, concepts and values in some of the various content areas of Industrial Education. The facts/skills, concepts and values shown are not meant to be a complete listing, but are rather samples used to demonstrate that for any skill or concept taught in Industrial Education classes, there are corresponding value areas that can also be directly brought to the students' awareness through various teaching strategies.


ENTERPRISE
Values
Workmanship
Environmental Impact
Health & Safety Standards
Quality Control Criteria
Humanizing Production Techniques
Planning and Working With Others
Concepts
Research & Design
Materials
Management
Processes
Marketing
Finance
Production
Evaluation
Property
Transportation
Communication
Energy
Facts/Skills
Record Keeping
Operating Production Machinery
Inventory Control
Finishing Processes
Making Jigs and Fixtures
Making a Pert Chart
Constructing Operation Flow Chart
Packaging Processes
Making Prototypes

The values strategies which follow are samples which can be used by the teacher in several different content areas. They may be used as is, adopted by the teacher, or used as models to develop other strategies.

Student Feelings Related to Work

Indicate on the following chart how much is not enough, how much is enough, and how much is more than enough for each item.

ITEM	Not Enough	Enough	More than Enough
Hourly wage			
Yearly wage			
Breaktime per day			
Starting time for work			
Percentage of income for taxes			
Amount of time for lunch			
Work hours per day			
Work hours per week			
Number of raises per year			
Years of work before retiring			
Retirement age			
Percentage of women in job market			
Number of job changes in a year			
Number of job changes in a lifetime			
Distance to a place of work			

VALUES SHEET

Artificial Obsolescence

"It is easier to sell objects that are thrown away than objects that are permanent."

Questions:

Do you agree or disagree with the above statement? Why?

How long must an object last to be called "permanent?"

List 10 items which you own which you consider "permanent."

List 10 items which you have purchased during the past week which you consider "throw-away" items.

What are some items which you feel should be thrown away after short term use?

Have you ever had something wear-out or break-down before you thought it should?

Have you ever read a guarantee for something which you bought? What was guaranteed? For how long?

VALUES SHEET

Benefits of Work

"And they're forcin' more work on ya. It's knockin' off men, makin' cutbacks here and there to save money. They've knocked off an awful lot of jobs. With the foreign imports of steel they're losin' money. That's what they say. I suppose in order to make a profit they have to cut somewhere. But I told 'em 'After forty years of work, why do you take a man away from me? You're gonna force me into retirement.' All of us were real angry. But there's nothin' we can do about it. What can I do? Quit?"

Working, by Studs Terkel

Questions:

Would you quit if you were the steelworker?

Have you ever been in a situation that you felt that you disliked but couldn't get away from?

Do you believe that the steel company should lay off workers in order to make money?

What might the steel company do instead of laying off people in order to save money?

Would you feel that a company owed an employee something other than wages after working for 40 years.

Should a person be automatically retired when he or she reaches a certain age?

Values Continuum

The teacher places a continuum on the blackboard. Polar positions are written on either end of the continuum, and the student goes to the blackboard and places a mark on the continuum to indicate his or her position on a specific issue. The student can then explain some of the reasons behind the position on a specific issue. The student can then explain some of the reasons behind the position taken.

Type of Work Environment

I accomplish more when working with a group of people.	1	2	3	4	5	6	7	8	I accomplish more when working by myself.

Goal of Industry

American Industry tries to rip off the public for all it is worth.	1	2	3	4	5	6	7	8	American Industry tries to meet the needs of society.

SIMULATION AND ROLE-PLAYING

Industry's Obligation Toward the Environment

A company which mines iron ore is dumping its waste products into a large lake. Some environmental groups are unhappy with this procedure because it is contaminating the water. One of the environmental groups has petitioned a court of law to force the mining company to stop running its waste products into the lake. The company, however, says it will move out of the town if it must change its operation due to the cost of alternative methods of handling its waste materials. The townspeople do not want the company to move away because most of the citizens depend on the company for jobs.

In groups of four, have each student play, respectively, a mining company representative, a town spokesperson, a member of the environmental group, and the judge. Each group should then attempt to resolve the dispute.

SAWDUST - A Simulation

Some Background Information:

The time is the present...the place Woodville, Wisconsin... Woodville, (pop. 315) is located in nothern Wisconsin in an area of great natural beauty. Its residents enjoy the outdoor life and take advantage of their surroundings. However, one of the folk wisdoms of Woodville is "you can't eat scenery". For many years the main employer in the town has been Larsen Industries which manufactures wooden porch and patio furniture. Founded by Soren Larsen the company has grown under his direction from a one man operation to be the economic life blood of the town employing 25 full-time workers and generating nearly a half a million dollars annual payroll.

At the turn of the century Woodville was the center of a large lumbering operation. It boasted a main street that included a bank, 3 grocery stores, a drygoods-hardware store, a blacksmithery, a teamster's stable and 7 bars. In addition there were 5 churches in town and a four room school. As the timber was logged off the lumber industry gradually moved west. When the sawmill shut down in the 1920's the town was left with a large decaying pile of sawdust and not much else. Main Street became boarded up and most of the loggers and their families moved on. Those that remained got by as "best they could", hunting, trapping and during the 1930's working for the W.P.A.

Source: Heron Gardner

By the time Soren Larsen made his first patio chair the town had shrunk to a third of its former size. At the same time the land started to come back. A heavy second growth made an indigenous pulpwood industry possible. Larsen Industries and pulpwood logging gave Woodville its second chance.

Although it never achieved the size and glory of its boom days, the town, today, is modestly prosperous. The average income is $7,800 per year. There is a grocery store, a laundromat, a gas station, a fix-it shop and a bar in town. Most residents work at Larsen Industries or cut pulpwood. A few still get by as "best they can" doing odd jobs for fellow town's men and for the few vacation home owners in the area.

There is no longer a school in town. Woodville has been consolidated with Forest City, 12 miles away, and all students from kindergarten to high school "ride the bus" daily. In Woodville "four years of high school" is considered to be a complete education.

A problem still to be overcome is the lack of opportunity for young people. Those that can find satisfactory work in the area stay. The rest migrate south to the larger cities.

SAWDUST

Situation Card

You are a committee of five people to resolve a critical health and economic issue directly relating to the future of the town of Woodville, where several of you live. The main employer of Woodville is Larsen Industries, a small company that manufactures wooden porch and patio furniture. Recently Larsen Industries failed to pass a federal health and safety inspection. In particular the company was cited for not having a proper ventilation system to remove sawdust particles from the air. The federal agency, OSHA, has given Larsen Industries six months to install the ventilating system and make other necessary changes or be faced with a court ordered shut down. Soren Larsen, the founder and president of the company, has said that the cost of making these changes is too great and that he will shut down the plant rather than comply. Larsen Industries is the economic life blood of Woodville and many of the town's people fear that without the jobs that it provides their town will die.

In another development a long time employee of Larsen Industries, Tom Johnson, has become permanently disabled at the age of 56 with a crippling lung disease. His illness has been diagnosed as being caused by the accumulation of dust particles in the lungs from breathing dust laden air over a long period of time. Now several other older long time workers have started to complain about feeling chest pains "just like Tom's". The once contented town of Woodville suddenly finds itself in the middle of a sawdust crisis!

Woodville's future to a great degree will be shaped by how your committee resolves this sawdust crisis.

The members of your committee are:

Marilyn Whiteside	Mayor of Woodville
Soren Larsen	President of Larsen Industries
Glen Scott	OSHA Inspector
Larry Sullivan	Industrial Arts Teacher
Allen Dodge	Worker Larsen Industries

ROLE CARD Production Worker - Larsen Industries

The possibility of the plant folding-up has you really worried. Since graduating from high school, you have worked at Larsen Industries, and you feel that it would be almost impossible for you to find another job that paid as well in Woodville. If the plant closes you would have to relocate in another area or face a greatly reduced income. Recently several suggestions as to possible alternatives have been made during coffee breaks. One is that the workers get together, raise the necessary capital to buy the plant from Soren Larsen and run and mange it themselves. Another is that the workers try to attract an outside buyer who will comply with the OSHA requirements and keep the plant in operation. Details for both of these suggestions are sketchy at the moment. A meeting has been called by Allen Dodge to explore these and any other ideas that may be brought up. You are hopeful that you and your co-workers can decide upon a course of action that will keep the plant running.

ROLE CARD Allen Dodge - Production Worker - Larsen Industries

You have worked on the floor at Larsen Industries for 15 years and enjoy your work. The closing of the plant would represent a real financial blow to you and your family. The end result might be that you would have to relocate in another area in order to find a job. This is something you really don't want to do. You feel that their must be some way to keep the plant running. To this end you have sounded out your fellow workers on several alternatives to closing the plant. In turn, you have been selected by your fellow workers to represent their interests at this meeting. After visiting Tom Johnson in the hospital, health has become of real concern to you. Basically you are hoping that this meeting will resolve the differences between OSHA and Larsen, however if this does not seem to be happening you are prepared to propose other plans in an attempt to preserve your own and fellow workers jobs.

ROLE CARD Larry Sullivan - Industrial Arts Teacher
Forest City H.S.

Although you are not directly involved with Larsen Industries and do not live in Woodville, many of your students do. You are concerned about the consequences for them and their families if the plant should close. Because you are respected in the community as a teacher and as a person Mayor Whiteside has asked you to serve as a neutral mediator for this meeting. You are hopeful that the conflict can be resolved to the satisfaction of all concerned.

ROLE CARD Marilyn Whiteside - Mayor of Woodville

As a divorced mother of three small children and owner of the Woodville grocery store you are doubly concerned. You are fully aware of the impact that the closing of Larsen Industries would have upon your store. As a friend and customer put it to you yesterday: "Marilyn, if Larsen closes you'll be able to fire a cannon down main street and not disturb a soul." You have worked hard for several years to build your grocery business to the point that it provides a comfortable income for you and your family. Now it seems that you and your children are once again facing struggle and hardship. However, you realize that your situation is not very different from many families in Woodville. As mayor you feel the added responsibility to resolve this crisis in such a way as to preserve the financial integrity of the community. At the same time good health is very important to you and you would never consciously jeoprodize the health of anyone. You have called this meeting in hopes that a reasonable compromise can be worked out.

ROLE CARD Glen Scott - OSHA Inspector

As an outsider and an official of the federal government you are sensitive to the present situation. You realize that many workers feel that the government is "interfering with their lives" by jeoprodizing their jobs. You are not made happy by the fact that your citation of the Larsen plant may result in 25 people losing their jobs. However, you feel your duty is to objectively and impartially enforce OSHA's regulations. There is no question in your mind that the present condition of the Larsen plant violates several standards, particularly in regards to air quality and that it represents a serious health threat to anyone working in it. As you see the situation there is no room for compromise. Either the necessary changes must be made to bring the plant into compliance with federal regulations or it must be closed.

ROLE CARD Soren Larsen - President Larsen Industries

You started Larsen Industries in a backyard garage forty years ago. Through your efforts the company has grown to become the economic life blood of your community and you feel you have always treated workers fairly and paid decent wages. You resent the government telling you how to run your business and are suspicious as to its motivations in citing your plant. Health you don't believe is the real issue. You point to the fact that for years you worked on the production floor just like the rest of the workers, breathed the same air, and at age 74 haven't had a reason for seeing a doctor in twenty years. You feel there must have been something wrong with Tom Johnson's lungs before he ever went to work for you and are hurt by the implication that working in your plant may have damaged his or anyone's health. All these years you have been operating in a very competitive market and have survived only through efficiency and cutting costs at every opportunity. By your calculations the increased production costs necessitated by the plant alterations will make your product uncompetitive to the point that it is no longer feasible to stay in business.

COMMUNICATING WITH YOUR SUPERIORS

The owner of this firm prides himself on his progressive style of management. He talks a lot about how to motivate and inspire employees. He has had considerable success in achieving good rapport with men employees and receives very little criticism or negative feedback.

The men's restroom is utilitarian. There are no lounges or comfortable chairs. The color scheme is institutional tan. Shower and locker facilities have been available for some time. The boss is a great believer in physical activity for men, and has supported various sports teams through the years. Lately he has been promoting jogging as a lunch hour break instead of eating a heavy lunch in the cafeteria. Jogging trails have been developed throughout the grounds. There is lots of encouragement and recognition given to men employees who participate in any form of physical exercise.

The women's restroom was decorated by a well known interior decorator in shades of pinks and lavender. There are lots of mirrors, and make-up tables. The furniture is soft and comfortable. There is a lounge complete with pillows and neatly folded blankets for any woman who wants to lie down during lunch breaks. There are no shower or locker facilities, nor is there any encouragement given to women who participate in physical exercise. There is a small group of 3-4 women who jog during their lunch breaks. Out on the jogging trails, the men employees are friendly. An easy rapport soon develops among those who run together. Other women employees are less sympathetic to the women joggers.

These 3-4 women joggers want to talk to the boss about adding shower and locker facilities to the women's restroom. They know that under the law, he must provide equal facilities for women. They also know that he does not receive criticism well. Their remarks to other non-jogging women about changing the restroom have been met with some hostility. There is no room to expand the restroom. The addition of showers would eliminate the easy chairs and lounge. If a vote were taken among the women employees, the joggers would be outvoted.

If you were a woman jogger in this company, would you communicate with your boss about adding showers and lockers to the women's restroom? If so, what form would your communication be?

Would you let things continue as they are, and adjust your schedule so that you jog after work?

Would you look up the law, consult a lawyer about ways of forcing compliance upon your boss, so that you could take legal action?

Would you complain a lot to other men joggers, hoping to enlist their support in influencing the boss?

Would you jog at noon, then demand to use the men's shower?

Choose and write about one of the above possible means of action. If none seem to be actions that you would take, what would you do? What would be the results of this action? Be prepared to discuss your decision.

Developed by:
Elizabeth Klitzke

Overcoming Personal Shortcomings

1. Write out a series of lists stating what you'd like to happen in five years in terms of occupation, leisure time, family and education.
2. Write out what you would like to happen in one year, regarding those same areas of your life.
3. Make a list of the things that you do well.
4. Make a list of the things you do poorly, i.e., things about yourself that that cause you concern.
5. Check over your five year list to see if these shortcomings might be obstacles to your goals.

Relating Your Skills and Competencies to a Goal You'd Like to Attain

1. List your skills and competencies and show how they relate to several career alternatives that you might want to pursue.

Skills and competencies	Career alternative and relationship to skills and competencies

2. Now try to determine what competencies or skills you think you are missing for each career alternative.

Career Alternative	Missing skill or competency

3. What outcomes, good or bad, might occur if you pursue your alternatives?
4. What things do you value in those outcomes? What makes them desirable?
5. What actions will you take?
6. When?

A Career List

Objective: The student makes a list of ten careers which are of interest and identifies some of the value factors which influenced each choice.

Activities:

1. Ask the students to make a list of ten careers or jobs which they, at any time, have considered to be the career or job for them. If the students have trouble thinking about possible careers for their list, hand out a copy of the 15 U.S.O.E. career clusters or any career list.

2. After the students have compiled their lists, ask them to do the following:
   a. Put a "$" next to the careers in which you could make a lot of money.
   b. Put an "O" next to the careers which involve working with or helping other people.
   c. Place a "R" next to those which involve physical or financial aids.
   d. Place an "E" next to those which require more than a high school education.
   e. Put a "P" next to those careers your parents would approve of.
   f. Put an "F" next to those your friends consider to be good jobs.
   g. Put an "I" next to those you would like more information on.
   h. Ask students to suggest other categories with appropriate symbols.

3. Thought or Discussion Questions:
   a. Are the careers that have the most marks next to them the careers that you have spent some time thinking about?
   b. How much have your parents influenced your choice? How much have your friends?
   c. Is money an important consideration in your choices?
   d. Do you think you will stay in the career of your choice until retirement? Why? or Why Not?
   e. Other questions suggested by students.

4. Complete the following statement in your own words:
   As a result of this exercise I learned that.....

   ____

   ____

   Students who wish to share their choices or the "I learned statements" with the class may do so.

5. Discuss the influence of the various value factors on career choices.

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CAREER ALTERNATIVES

Write down five careers which you find interesting. Under each career, list four character traits you feel a person must possess for that particular occupation.

1.

   a.
   b.
   c.
   d.

2.

   a.
   b.
   c.
   d.

3.

   a.
   b.
   c.
   d.

4.

   a.
   b.
   c.
   d.

5.

   a.
   b.
   c.
   d.

Now mark the character traits according to the following.
H - those you know you have
W - those you would like to have
F - those that others feel you have

What did you learn from this exercise?

The group can then be broken up into further small groups for discussion.

ACCOMPLISHMENTS + SKILLS = VALUES

STEP 1. Make a list of accomplishments from different portions of your life, e.g., 2 or 3 for each five year period of your life. From this list, choose the seven most satisfying accomplishments or achievements which are most meaningful to you.

STEP 2. Imagine that you have just arrived at a party. At this party, people with similar interests have gathered in various areas of the room. There are six groups of people.

____ A People who have athletic or mechanical ability, prefer to work with objects, machines, tools, plants, or animals, or to be outdoors.

____ B People who like to work with data, have clerical or numerical ability, carrying things out in detail or following through on other's instructions.

____ C People who like to work with people - influencing, persuading or performing or leading or managing for organizational goals or for economic gain.

____ D People who like to work with people - to inform, enlighten, help, train, develop, or cure them, or are skilled with words.

____ E People who have artistic, innovating or intuitional abilities, and like to work in unstructured situations, using their imagination or creativity.

____ F People who like to observe, learn, investigate, analyze, evaluate, or solve problems.

(1) Which group of people would you most enjoy being with for the longest time (assuming that you are not shy and that conversation is no problem)? Write '1' on the line beside that group.

(2) After 15 minutes, everyone in the first group leaves for another party. Of the groups that remain, which group would you now enjoy being with for the longest time? Write '2' on the line beside that group.

(3) After fifteen minutes, this group also leaves for another party. Of the groups that remain, which group would you now enjoy being with for the longest time? Write '3' on the line beside that group.

STEP 3. Compare the seven most satisfying accomplishments in your life from Step 1 with the top three groups in Step 2.

What similarities do you observe?

Are there obvious differences between your choices in Step 1 and Step 2?

What common values do you identify in the two Steps?

RANK ORDER

What Makes Work Worthwhile

People consider some attributes of a job to have greater importance than others. Rank the following items from 1 to 15 according to what you feel is most important in liking a job.

____ Varied work
____ The product or service I produce is socially important
____ The work requires intelligence
____ The work is not physically exhausting
____ The work allows me to increase my skill level
____ The wages are good
____ Work hours are convenient
____ Good equipment is provided
____ Work duties are clear and well organized
____ Work is steady
____ Good sanitary and hygienic conditions
____ Good safety equipment
____ Good relations with co-workers
____ Recognition of good work from supervisor
____ Other features ______________________________

Leisure Time From Work

If you were working 40 hours a week and your work hours were reduced to 20 hours without a decrease in pay, how would you spend your extra free time? Rank order the following from 1 to 15.

_____ Go to the movies more often
_____ Read more books and magazines
_____ Go to parties more often
_____ Spend time with the family
_____ Attend more sports events
_____ Do work around the house
_____ Go to museums and exhibits more often
_____ Engage in sports
_____ Watch more television
_____ Go to school
_____ Go hunting and fishing
_____ Work on cars and motorcycles
_____ Do art or craft works
_____ Find an additional job in order to make more money
_____ Just rest, without doing anything

John Norgel

Enterprise Concept: Communication

Strategy Format: Voting

INTRODUCTION:

This strategy is to provide a starting point for the instructor that will lead into the study of industry. Answering the following questions, students will realize the role industry plays in their lives. By interacting verbally, they have completed an exercise in the first concept of the enterprise system, communication.

When asked the question whether industry affects you, your first response might be "no". Let's think about this and see how true it really is.

HOW MANY OF YOU

1. feel there are products on the market that are of unacceptable quality (inferior, junk)?
2. feel that prices are too high? too low?
3. feel that age requirements to purchase some items are too high?
4. know how industry is organized?
5. think there are unsafe products on the market?
6. bought items totalling $1.00 or less this week?
   bought products totalling more than $5.00 this week?
   personally bought something for $100.00 or more?
7. would like the same job as your dad?
8. know what kind of job you are planning on doing?
9. are prepared for that job now? (How much education or training will you need for the job you want to do?)
10. avoid buying products that can be harmful to the environment?

Enterprise Concept: Research

Strategy Format: Rank Order

INTRODUCTION:

A wise decision is based upon a selection of alternatives, which is further established according to the consequences of each alternative. Therefore, it is the purpose of this strategy to provide experience and insight into the ramifications of decision making in research.

Sometimes decisions result in serious problems at a later date. Not all problems can be eliminated, but they can be reduced to a minimum. Given the circumstances below, how would you react? Rank your choices from that which you consider the most effective to that which, in your estimation, would be the least effective.

1. You are a researcher and have designed a product that many people would want and could afford. Just before you are ready to show it to your boss, you find that it might have some harmful effects on the user. Would you:
    - show it to your boss, neglecting to tell of the side effects
    - show it to your boss and tell of the hazards
    - keep the product under wraps until you find a solution to the problems
2. The researcher-scientist first has an obligation to:
    - his boss
    - the company he works for
    - the general public
    - his own interests
    - no one
3. As a researcher, your first obligation is to design and develop something that:
    - will make money for your company
    - not be harmful to the environment
    - make life easier for people

4. In a research design problem, the most important thing is to:

   - consider advice or direction from friends or co-workers
   - rely on your own personal opinion which is the result of conducting experiments many times
   - do what the boss directs

5. More research is needed to:

   - control the population
   - provide for leisure and entertainment
   - deal with pollution and environmental issues

6. You are asked to design a weapon that will be used to destroy people, you:

   - quit your job
   - carry out the request without further thought
   - work on the job with never the intent to complete or comply

7. You are a key executive who is the head of a conglomerate of many businesses. Ten million dollars has been earmarked for research and you have many research departments. You decide to give it to those researchers whose work will:

   - bring in more money for the organization
   - be used for humanitarian development
   - benefit natural resources and the environment

8. Being head of a research department, you are given an amount of money to carry on your work. You decide that it is most important to work on:

   - improving existing problems
   - researching new products to fit specific needs
   - conducting pure research

SYNTHESIS THROUGH PRODUCT DEVELOPMENT

A. Research and Design

ACTIVITY

8. "Reporting to Management"

Allow 2 class periods

OBJECTIVE: *At the completion of this activity the student will have demonstrated his knowledge of how reports are made to management as evidenced by the completion of a presentation to the class.*

EQUIPMENT AND SUPPLIES NEEDED: Paper and pencil

REFERENCE MATERIAL: "Engineering Graphics," Feb. 6, 1967, included
ENGINEERING DESIGN GRAPHICS, pages 484-491 not included
DRAFTING TECHNOLOGY & PRACTICE, Spence, Bennett Pub. Co., pages 226-248, 726-756, not included

PROCEDURE FOR THE ACTIVITY

1. Teacher Information
   A. The purpose of this activity is to show management is kept informed of the progress of new design products.

   B. The collection and analysis of the data on existing and new products must be the first step in preparing to write a capital expenditure request. This should be collected and understood for presenting to top management. On new products which are to be implemented, it is imperative to show management the proposed investment and decide what is the best way to achieve the approvement of the company. When presented with the full story, top management will be able to make the best decision for the company.

   When an investment is proposed, management needs to know how sound this investment is and whether this is sufficient to justify the expenditure.

   Capitol investment is needed by companies to expand the capabilities of its business and provide the base from which additional sales and profits can be achieved. Top management makes the final decision between the alternatives presented with questions such as:
   1. Does this investment move us into the product and market direction desired by our corporation?
   2. Is this a profitable way to go?
   3. Does this particular product fit the master.plan?

   The collection and analysis of the data on the existing system is the first step in preparing to write a capital expenditure request. This data is collected so that the presenter has a complete understanding of the product to be changed or added in order to present this picture to top management. When you understand the present products, etc. you want to see implemented you need to show that the proposed investment is the best way to achieve that improvement in the product.

(c) Prentice-Hall, Englewood Cliffs, N.J.

DESIGN EVALUATION FORM

Product Characteristic	0	1	2	3	4	5	6	7	8	9	10
Function											
Reliability											
Life Expectancy											
Uses Standard Parts											
Ease of Assembly											
Availability of Materials											
Selection of Materials											
Appearance											
Staying with Constraints of Prepared Factors											
Cost/Unit of Production											
Safety											
Effect on Environment											
Effect of Environment											
Maintenance											
Use of Present Manufacturing Processes											
Efficiency of Materials											
Strength											
Design Proportion											

OCCUPATIONS

This is an inventory of your feelings and attitudes about many kinds of work. Show the occupations that interest or appeal to you by blackening under Y for "yes". Show the occupations that you dislike or find uninteresting by blackening under N for "no."

	Y	N
Airplane Mechanic	☐	☐
Fish and Wildlife Specialist	☐	☐
Power Station Operator	☐	☐
Master Plumber	☐	☐
Power Shovel Operator	☐	☐
Surveyor	☐	☐
Construction Inspector	☐	☐
Radio Operator	☐	☐
Filling Station Attendent	☐	☐
Tree Surgeon	☐	☐
Tool Designer	☐	☐
Locomotive Engineer	☐	☐
Photoengraver	☐	☐
Electrician	☐	☐

Total Realistic Y's

	Y	N
Foreign Missionary	☐	☐
High School Teacher	☐	☐
Juvenile Delinquency Expert	☐	☐
Speech Therapist	☐	☐
Marriage Counselor	☐	☐
Physical Education Teacher	☐	☐
Playground Director	☐	☐
Clinical Psychologist	☐	☐
Social Science Teacher	☐	☐
Director of Welfare Agency	☐	☐
Asst. City School Supt.	☐	☐
Personal Counselor	☐	☐
Psychiatric Case Worker	☐	☐
Vocational Counselor	☐	☐

Total Social Y's

Meteorologist	☐	☐
Biologist	☐	☐
Astronomer	☐	☐
Aeronautical Design Engineer	☐	☐
Anthropologist	☐	☐
Zoologist	☐	☐
Chemist	☐	☐
Independent Research Scientist	☐	☐
Writer of Scientific Articles	☐	☐
Editor of a Scientific Journal	☐	☐
Geologist	☐	☐
Botanist	☐	☐
Scientific Research Worker	☐	☐
Physicist	☐	☐

Total Investigative Y's

Speculator	☐	☐
Buyer	☐	☐
Stock and Bond Salesman	☐	☐
Manufacturer's Representative	☐	☐
Television Producer	☐	☐
Hotel Manager	☐	☐
Business Executive	☐	☐
Restaurant Worker	☐	☐
Master of Ceremonies	☐	☐
Traveling Salesman	☐	☐
Real Estate Salesman	☐	☐
Industrial Relations Consultant	☐	☐
Sports Promoter	☐	☐
Political Campaign Manager	☐	☐

Total Enterprising Y's

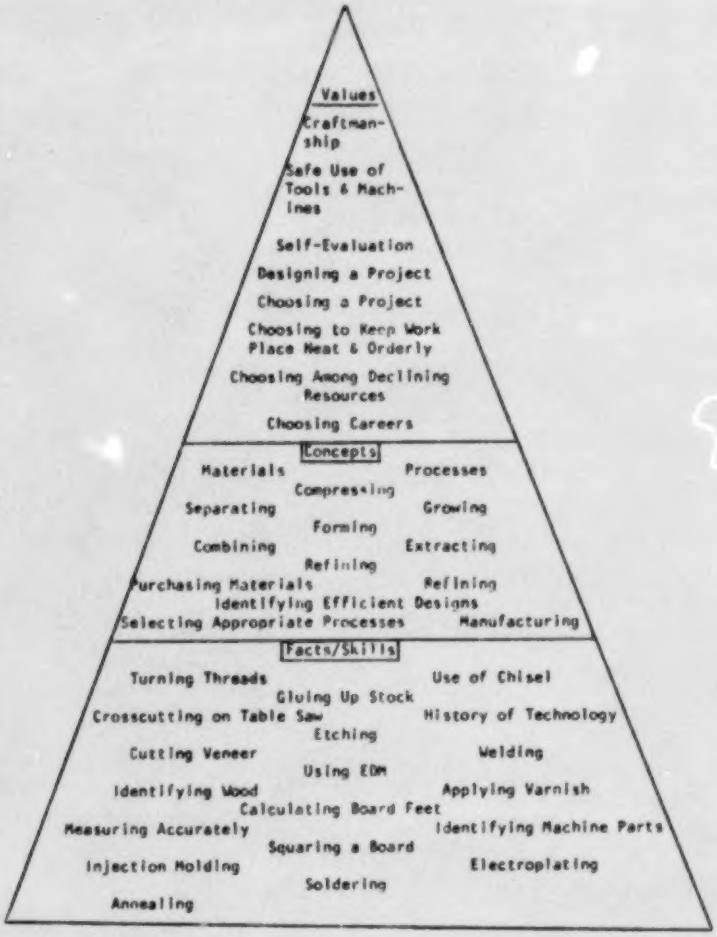
	Y	N
Poet	☐	☐
Symphony Conductor	☐	☐
Musician	☐	☐
Author	☐	☐
Commercial Artist	☐	☐
Free-Lance Writer	☐	☐
Musical Arranger	☐	☐
Art Dealer	☐	☐
Dramatic Coach	☐	☐
Concert Singer	☐	☐
Composer	☐	☐
Stage Director	☐	☐
Playwright	☐	☐
Cartoonist	☐	☐

Total Artistic Y's

	Y	N
Bookkeeper	☐	☐
Quality Control Expert	☐	☐
Budget Reviewer	☐	☐
Traffic Manager	☐	☐
Statistician	☐	☐
Court Stenographer	☐	☐
Bank Teller	☐	☐
Tax Expert	☐	☐
Inventory Controller	☐	☐
IBM Equipment Operator	☐	☐
Financial Analyst	☐	☐
Cost Estimator	☐	☐
Payroll Clerk	☐	☐
Bank Examiner	☐	☐

Total Convention Y's

MATERIALS & PROCESSES


Values
Craftmanship
Safe Use of Tools & Machines
Self-Evaluation
Designing a Project
Choosing a Project
Choosing to Keep Work Place Neat & Orderly
Choosing Among Declining Resources
Choosing Careers
Concepts
Materials
Processes
Compressing
Separating
Growing
Forming
Combining
Extracting
Refining
Purchasing Materials
Refining
Identifying Efficient Designs
Selecting Appropriate Processes
Manufacturing
Facts/Skills
Turning Threads
Use of Chisel
Gluing Up Stock
Crosscutting on Table Saw
History of Technology
Etching
Cutting Veneer
Welding
Using EDM
Identifying Wood
Applying Varnish
Calculating Board Feet
Measuring Accurately
Identifying Machine Parts
Squaring a Board
Injection Molding
Electroplating
Soldering
Annealing

The values strategies which follow are samples which can be used by the teacher in several different content areas. They may be used as is, adopted by the teacher, or used as models to develop other strategies.

VALUING SKILLS:

First day of class activities, using 3 X 5 cards:

1. Describe in a short paragraph what you expect to learn (gain, do) in (drafting, wood, power, communication).

2. List your previous experiences in (woodworking, drawing, electricity, etc.)

3. Rank from 1 to 10 the following subjects from those you like best to those you like least.

_____ Math
_____ Art
_____ Social Studies
_____ Industrial Education
_____ Business and Office Occupations
_____ Music
_____ Phy Ed
_____ English
_____ Home Economics

Name________________________ Period___ Grade Level___ Notebook #___

Instructor____________________ Date________

Please answer the following questions. Students show how they feel by making a circle around one of the numbers from "Very Unsatisfied" to "Very Satisfied." Instructors will blank out number in showing their feeling about the question.

How do you feel about:	Very Unsatisfied			-	Very Satisfied		
1. The way you planned your project?	1	2	3	4	5	6	7
2. Your choice of materials in making your project?	1	2	3	4	5	6	7
3. The way you used tools and equipment when you were making your project?	1	2	3	4	5	6	7
4. How hard you worked in making your project?	1	2	3	4	5	6	7
5. The quality of your project now that you have finished it?	1	2	3	4	5	6	7
6. How do you think your teachers feel about the quality of ycur project?	1	2	3	4	5	6	7

7. What project did you just complete?______________________

8. What new equipment did you check out on in order to complete this project?______________________

9. What do you feel you did well on this project?______________________

____

____

10. What do you feel you did not do well on this project?______________________

____

____

11. Do you have other comments?______________________

____

____

____

Source: Occupational Versatility Program

Example:

		None of the time			Half of the time			All of the time
My time is valuable so I use every minute	Month	1	2	3	4	5	6	7
		0	0	0	0	0	0	0

		None of the time			Half of the time			All of the time
	Month	1	2	3	4	5	6	7
1. I find things that I want to make	____	0	0	0	0	0	0	0
	____	0	0	0	0	0	0	0
	____	0	0	0	0	0	0	0
	____	0	0	0	0	0	0	0
2. I use the planning sheet in thinking through my activities	____	0	0	0	0	0	0	0
	____	0	0	0	0	0	0	0
	____	0	0	0	0	0	0	0
	____	0	0	0	0	0	0	0
3. I use the media provided to the shop	____	0	0	0	0	0	0	0
	____	0	0	0	0	0	0	0
	____	0	0	0	0	0	0	0
	____	0	0	0	0	0	0	0
4. I complete projects that I start	____	0	0	0	0	0	0	0
	____	0	0	0	0	0	0	0
	____	0	0	0	0	0	0	0
	____	0	0	0	0	0	0	0
5. Materials cost money so I am careful in selecting pieces that will eliminate waste	____	0	0	0	0	0	0	0
	____	0	0	0	0	0	0	0
	____	0	0	0	0	0	0	0
	____	0	0	0	0	0	0	0
6. My time is valuable so I use every minute	____	0	0	0	0	0	0	0
	____	0	0	0	0	0	0	0
	____	0	0	0	0	0	0	0
	____	0	0	0	0	0	0	0
7. I am proud of my accomplishments in the shop	____	0	0	0	0	0	0	0
	____	0	0	0	0	0	0	0
	____	0	0	0	0	0	0	0
	____	0	0	0	0	0	0	0
8. I help my fellow students when they ask me to	____	0	0	0	0	0	0	0
	____	0	0	0	0	0	0	0
	____	0	0	0	0	0	0	0
	____	0	0	0	0	0	0	0
9. I leave my work area in good shape for the next person	____	0	0	0	0	0	0	0
	____	0	0	0	0	0	0	0
	____	0	0	0	0	0	0	0
	____	0	0	0	0	0	0	0

Comments:

PROJECT EVALUATION

NOTEBOOK # ____________________

DATE ____________________

PERIOD ____________________

NAME ____

Last First Middle Initial

SAMPLE QUESTIONS:	Unsatisfied						Very Satisfied
How do you feel about:							
A. The way you play football?	1	2	3	4	5	6	7
B. The way you sing?	1	2	3	4	5	6	7

* * * * * * * * * * * * * *

How do you feel about:							
1. The way you planned your project?	1	2	3	4	5	6	7
2. Your choice of materials in making your project?	1	2	3	4	5	6	7
3. The way you used tools and equipment when you were making your project?	1	2	3	4	5	6	7
4. How hard you worked in making your project?	1	2	3	4	5	6	7
5. The quality of your project now that you have finished it?	1	2	3	4	5	6	7
How do you think:							
6. Your teachers feel about the quality of your project?	1	2	3	4	5	6	7

ON QUESTIONS 7 THROUGH 12, WRITE YOUR ANSWER ON THE LINES PROVIDED.

7. What project did you just complete? ____

____

8. Which area of the shop was this project from? ______________________________

____

9. Have you made other projects in this area of the shop? ______________________________

____

10. What do you feel you did well on this project? ______________________________

____

11. What do you feel you did not do well on this project? ______________________________

____

12. What would you do differently if you were to do this same project again?

____

____

____

____

Characteristics of Students - assign a % to each item according to how many students you think fall within that category.

_____ 1) works hard

_____ 2) cheats in class

_____ 3) cleans up after himself

_____ 4) wants to learn

_____ 5) tries to con the teacher

_____ 6) is helpful to other students

_____ 7) is lazy

_____ 8) is a self-directed learner

_____ 9) can't read

_____10) follows directions

MATERIAL ANALYSIS AND PROCESSING SYSTEMS

ATTITUDE INVENTORY

DO NOT WRITE ON THIS TEST FORM. USE YOUR ANSWER SHEET!

1. I am afraid to operate machines used in the material analysis and processing systems course.
2. I want to be a cabinetmaker.
3. Physical education is more fun than the material analysis and processing systems class.
4. I would never want to be a welder.
5. The Material Analysis and Processing Systems course will help me in my future career choice.
6. I dislike classes that involve all book work.
7. Safety need not be emphasized in material analysis and processing systems.
8. Material analysis and processing systems of industry makes up the largest part of our modern economic system.
9. This material analysis and processing systems class is an important part of the school curriculum.
10. Material analysis and processing systems class should consist on only building projects.
11. I feel comfortable in the material analysis and processing systems class.
12. The study of ecology does not belong in the study of material analysis and processing systems.
13. This course should give me a good idea how industry utilizes material analysis and processing systems.
14. The material analysis and processing systems class should emphasize the skill of using hand tools.
15. Material analysis and processing systems class will help me think about my future.
16. The study of properties and characteristics of wood does not belong in the study of material analysis and processing systems.
17. I would rather work as a group member than individually in material analysis and processing systems.

ATTITUDE INVENTORY continued

18. I feel plastics is one of todays major industrial materials.

19. Material analysis and processing systems class is more fun than study of power and energy.

20. I understand and appreciate the value of wood lamination in the construction industry.

21. I enjoy working with wood better than any type of material.

22. No matter what the work is, it should be done well.

23. Every person should be proud of his work.

24. Clean work is most desirable.

MATERIAL ANALYSIS AND PROCESSING SYSTEMS

ATTITUDE INVENTORY

Student's Name

Read the statements carefully and circle the "yes" response if you agree; circle the "no" response if you disagree; circle the "undecided" (und) if you do not know for sure. There is no right or wrong answer. The results will not effect your grade and will be held in confidence. Please answer honestly!

1.	no	und	yes
2.	no	und	yes
3.	no	und	yes
4.	no	und	yes
5.	no	und	yes
6.	no	und	yes
7.	no	und	yes
8.	no	und	yes
9.	no	und	yes
10.	no	und	yes
11.	no	und	yes
12.	no	und	yes
13.	no	und	yes
14.	no	und	yes
15.	no	und	yes
16.	no	und	yes
17.	no	und	yes
18.	no	und	yes
19.	no	und	yes
20.	no	und	yes
21.	no	und	yes
22.	no	und	yes
23.	no	und	yes
24.	no	und	yes
25.	no	und	yes

ATTITUDE INVENTORY

EVALUATION INFORMATION

The results of the attitude inventory will determine the affective learning of students in the Material Analysis and Processing Systems class.

The following questions should be considered positive with a "yes" response.

5,8,9,11,13,16,18,21,23,25,26,27,28

These following questions should be considered positive with a "no" response.

1,7,8,12,17,19,20

ACTIVITY
"Independent Study"

Allow 14 Class periods

OBJECTIVE: At the completion of 14 days the student will have successfully completed all requirements contained in the individual study contract as evidenced by instructor approved signature.

EQUIPMENT AND SUPPLIES NEEDED: Existing shop facilities and equipment

REFERENCE MATERIAL: Any and/or all reference material used during the course.

PROCEDURE FOR THE ACTIVITY

1. Teacher Information
   A. The purpose of the independent study activity is to allow the students an opportunity to work in an area of their own interest or need that is related to the study of power.

   B. Procedure:

Day One:
1. Explain and have students complete the contract on the following page.
2. The actual working days for the contract will be 12 days-one of the 14 days will be used to complete the contract. The remaining day will be used to give oral reports.
3. Two copies of the contract should be completed by each student. The student should have one copy with him in class each day. The other copy is for the teachers record.
4. The daily log on back of the contract should be completed each day by the students so the teacher will be aware of the actual work completed by the student that day.
5. If the student is to build a project, a set of plans and material costs should be attached to the contract.
6. The scope of the contract should be related to the power area. The teacher should check carefully to see that the student does not begin a task that is too lengthy, difficult or one that cannot be completed within the facilities of the school.
7. Possible areas of contract work: designing and building model rockets-minor maintenance and overhaul of small engines-advanced experiments on any of the equipment used in the course-research reports on any topic of power-career research-electrical kits-research on transportation systems-etc.

Days 2-13: The teacher should individually help solve student problems with their contract work.

Day 14: Have each student show their contract work to the class and give a 1 to 2 minute oral report concerning their work.

Independent Study Contract

This agreement
made this____________day of___________in the year of Nineteen Hundred and________.

By and Between

_________________________Here after called the Independent Study Student, and
_________________________Here after called the Instructor.

Witnesseth,
That whereas the Independent Study Student intends to study, plan and/or organize:

Witnesseth,
That whereas the Independent Study Student intends to build or fabricate:

Now, therefore,
The Independent Study Student and the Instructor, for the considerations here after named, agree as follows:

ARTICLE I: THE WORK TO BE DONE AND THE DOCUMENTS FORMING THE CONTRACT:
The Independent Study Student agrees to provide all the labor, pay for all materials and to do all things necessary for the proper completion of the work shown above and described on the attached plans.

ARTICLE II: TIME OF COMPLETION
The work to be performed udner this contract shall commence and be completed as follows:

Beginning Date_______________Final Completion Date_______________

ARTICLE III: CONTRACT REPORT
The Independent Study Student agrees to give to the class a short oral report concerning his contract work at the completion of the contract.

ARTICLE IV:
The Instructor agrees to provide minor assistance to the Independent Study Student upon request by Student.

Signed:__________________________________ _____________________________________
Independent Study Student Instructor

UNFINISHED SENTENCES

Student views of project or product design

"The most important consideration in my project will be.........."

"When I first use an unfamiliar woodworking (metalworking, graphic arts, etc.) machine, I feel........."

"My favorite type of chair to sit in is........."

"When (or if) I am given a chance to design a project, the first thing I think about is........."

"Compared to products sold in stores, I expect my project........."

"The person which my project design should most please is........."

ALTERNATIVE SEARCH

Problem Projects. The teacher gives the students, who work individually or in small groups, a project problem which is stated in terms of a "need." The students are then directed to work out or brainstorm several alternative solutions to the needs-problem, say 5 or 10. Following this the various solution ideas would be rank ordered according to the most desirable, feasible. The final solution would then be developed and carried out by the individual or small group.

Sample "needs" problems are:

A way to beautify the school grounds or buildings.
A means to improve traffic patterns of students in hall ways.
A way to use shop scrap materials such as sawdust and metal chips.
Ways to make the shop more safe.
Ways to make woodworking shops less noisy.

QUARTERLY GOAL SHEET

Name______________________________ Course____________________

Quarter____________________

1. During this quarter I would like to learn or do____________________
____.

2. At the end of this term, I would like to be able to____________________
____.

3. I feel that I would best achieve my goals using:
   a. What teaching styles?______________________________
   ____
   b. What resources?______________________________
   ____
   c. What equipment?______________________________
   ____
   d. Other things?______________________________
   ____

RANK ORDER

Woodworking. Rank from 1 to 5 the following woodworking machines from the one you are most comfortable using to the one you are least comfortable using.

________Band Saw

________Jointer

________Table Saw

________Lathe

________Router

Uses of Forest Products. Rank from 1 to 4 the following possible uses for a forest according to how you feel they should be used.

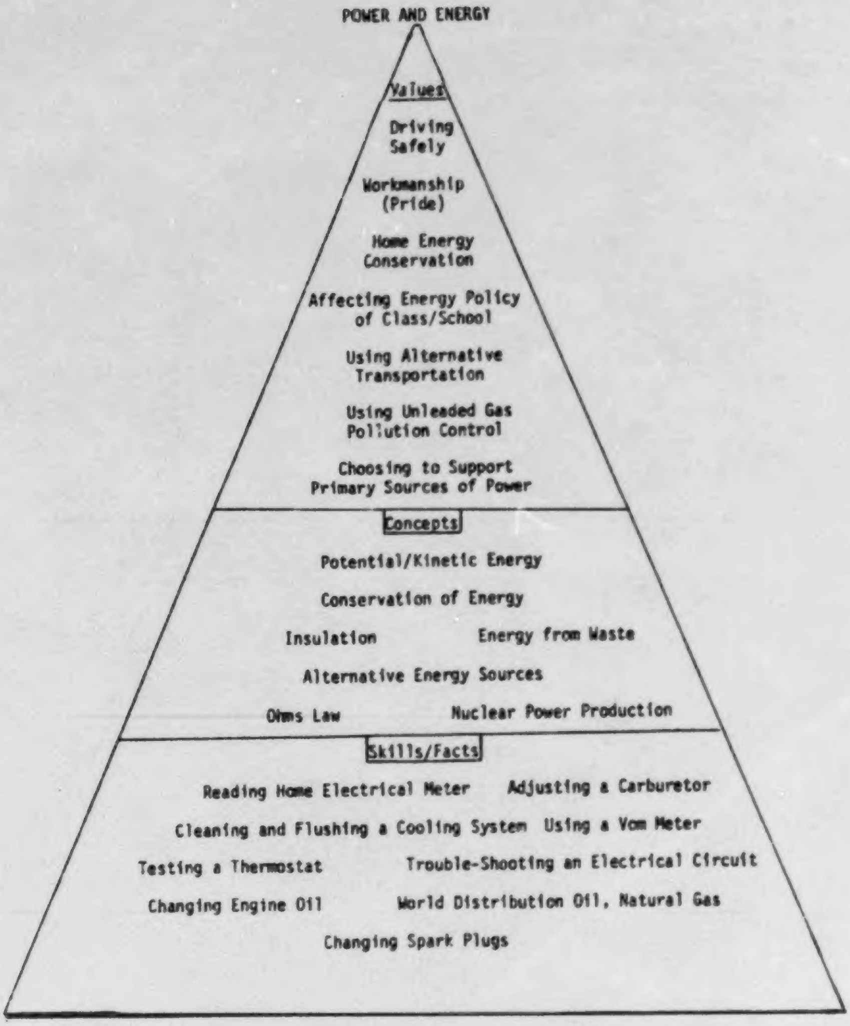
________Harvesting for paper and lumber

________Hunting and fishing

________Resort development

________Naturally preserved

POWER AND ENERGY


Values
Driving Safely
Workmanship (Pride)
Home Energy Conservation
Affecting Energy Policy of Class/School
Using Alternative Transportation
Using Unleaded Gas Pollution Control
Choosing to Support Primary Sources of Power
Concepts
Potential/Kinetic Energy
Conservation of Energy
Insulation
Energy from Waste
Alternative Energy Sources
Ohms Law
Nuclear Power Production
Skills/Facts
Reading Home Electrical Meter
Adjusting a Carburetor
Cleaning and Flushing a Cooling System
Using a Vom Meter
Testing a Thermostat
Trouble-Shooting an Electrical Circuit
Changing Engine Oil
World Distribution Oil, Natural Gas
Changing Spark Plugs

The values strategies which follow are samples which can be used by the teacher in several different content areas. They may be used as is, adopted by the teacher, or used as models to develop other strategies.

POWER CURRICULUM

ATTITUDE INVENTORY

Read the statements carefully and answer all statements on the answer sheet. Circle the "yes" response if you agree; circle the "no" response if you disagree; circle the "undecided" (und) if you do not know. There is no right or wrong answer. The result will not affect your grade and will be held in confidence. Please answer honestly.

1. Physical education is more fun than the power and energy class.
2. Electrical power plants are not contributors to air pollution.
3. Power is a small part of industry today.
4. I am afraid of electricity.
5. I enjoy working with small engines.
6. Most gasoline engines are efficient.
7. I want to be a mechanic.
8. The power and energy course will help me in my future career choice.
9. I would never want to be an electrician.
10. The supply of energy is unlimited.
11. I dislike getting my hands dirty.
12. Working with ones hands is an undesirable characteristic of the occupations in power and energy.
13. I like to work with combinations of the simple machines.
14. I understand and appreciate the value of simple hydraulic systems
15. The power and energy course should emphasize the maintenance and repair of small gasoline engines.
16. Power and energy courses do not use the content taught in mathematics, science, etc.
17. Safety need not be emphasized in power and energy classes because of the limited number of machines used.

18. Power and energy is more fun than building products in the materials and processes classes.

19. Power and energy does not make use of communications technology.

20. Power systems of today are essential factors in our present standard of living.

21. The study of gears, pulleys, levers, chains, etc. does not belong in the study of power and energy.

22. I prefer to work as a group member rather than individually in power and energy.

23. I would rather have the power and energy class taught by the lecture-demonstration method as compared to student activities.

24. Power and energy is an important part of school work.

25. Talking about power and energy is something I like to do.

ATTITUDE INVENTORY ANSWER SHEET

DATE_______________HOUR______________NAME________________________________

CLASS____________________STUDENT #_____________________________________

Instructions: Circle the"yes" response if you agree with the statement;circle the "no" response if you disagree with the response; circle the "undecided" if you do not know.

1.	No	Undecided	Yes	15.	No	Undecided	Yes
2.	No	Undecided	Yes	16.	No	Undecided	Yes
3.	No	Undecided	Yes	17.	No	Undecided	Yes
4.	No	Undecided	Yes	18.	No	Undecided	Yes
5.	No	Undecided	Yes	19.	No	Undecided	Yes
6.	No	Undecided	Yes	20.	No	Undecided	Yes
7.	No	Undecided	Yes	21.	No	Undecided	Yes
8.	No	Undecided	Yes	22.	No	Undecided	Yes
9.	No	Undecided	Yes	23.	No	Undecided	Yes
10.	No	Undecided	Yes	24.	No	Undecided	Yes
11	No	Undecided	Yes	25.	No	Undecided	Yes
12.	No	Undecided	Yes	26.	No	Undecided	Yes
13.	No	Undecided	Yes	27.	No	Undecided	Yes
14.	No	Undecided	Yes	28.	No	Undecided	Yes

KEY FOR EVALUATING ATTITUDE INVENTORY

The following statements should be considered positive with a "yes" response:

#1,5,8,10,14,18,20,25,26,28

The following statements should be considered positive with a "no" response:

#2,3,6,15,16,17,19,21,27

The affective Performance Objective stated that a 15% positive increase in attitude would be obtained between the S.E.T. Project Pre and Post attitude inventory test.

In order to determine whether or not this positive increase has been reached you must compare the results of the students pre-test score with the students post-test score on the Attitude Inventory Test.

To meet the objective at least four of the students Post Test responses must change positively.

ENERGY CONTINUUM

Place an X on the following scale to indicate how you think money should be used for energy research.

Money for Energy Research should go for forms like solar, wind, and geothermal.	1 2 3 4 5 6 7	Money for Energy Research should go for nuclear fuel.

QUESTIONAIRE HYPOTHESES FOR INDUSTRIAL ARTS CLASSES

People believe that the energy crisis is caused by the oil companies desire for greater profit.

People believe that industrial products show less craftsmanship today than in the past.

Students feel that "brain" work is more noble than hand work.

Students are more concerned about the welfare of the environment than their parents.

VALUES CLARIFICATION STRATEGIES
FOR THE ENERGY CRISIS

Voting

After each quesiton is read, people take a position by a show of hands. Those agreeing raise their hands and those disagreeing point their thumbs down. Those who are undecided fold their arms and those who want to pass take no action at all. (Students can be given time to discuss their rationale.)

1. How many think it's right to stock pile gas for the car if you have the storage facilities?

2. How many think you should trade in your car for one that consumes less gas?

3. How many have cancelled any trips you were going to make because of the fuel shortage?

4. How many think that car pooling is a good way for you to save gas?

5. How many think it's right to remove the anti-pollution devices from your car to save gas? How many would change their vote if they could save five gallons for each tank of gas used? . . .ten gallons for each tank of gas used.

6. How many think that every homeowner should invest time or money to reduce energy loss from his home? How many are willing to invest two hours next week to do this? . . .ten dollars next week to do this?

7. Do you think it's right for trucks and buses to be allowed to go at a speed of 55 miles per hour while cars can only go 50 miles per hour?

8. How many are willing to lower your thermostat 6 degrees to save energy?

9. How many are willing to change their life styles in some ways to save energy?

10. How many resent waiting in line more than 30 minutes to fill your gas tank? Who or what do you resent if you do?

11. How many would favor laws promoting car pooling? . . .financial incentives for car pooling?

12. If it could be enforced fairly, how many would agree to an energy tax which would decrease if you used less energy and increase if you used more?

13 Do you think it is fair to use all the gas you want if you have enough money to pay for it?

14. Should businesses be forced to reduce their lighting for advertising even if they have proof that it reduces their profits?

15. Is it right to allow coal with a high sulphur content to be burned instead of a "cleaner" fuel?

16. Should the Federal government keep track of the oil reserves available in this country even if the oil companies object?

RANK ORDERING

The alternative choices for each question should be ranked according to each person's value preferences by placing numbers, 1, 2, and 3 before each set. (Discuss in trios with a time limit, changing trio members frequently.)

1. In a severe energy crisis what is the order that the following should be affected?

   Churches
   Schools
   Municipal Government

   Movie Theaters
   Bars
   Sports Arenas

   Department Stores
   Factories
   Restaurants

   Roller Rinks
   Bowling Alleys
   Gymnasiums

2. Rank in order of your preference for a means of travel to Madison: (or someplace near you)

   car
   train
   airplane

   hitch hiking
   bus
   driving a car for someone else in return for a free ride

3. Rank in order those appliances you would be willing to use less to save energy:

   electric heater in the winter
   air conditioner in the summer
   television

   dishwasher
   clothes dryer
   stereo

AUTO MECHANICS

CLEAN AIR ACT

Upon completion of this course several of your friends ask you to fix the emission control devices on their cars so they don't work in order to improve their gas mileage.

1. List four possible responses you might make to such a request.
2. Identify and briefly describe at least one consequence for each of the responses.
3. Choose the response that you would most likely make under the circumstances

RESPONSE	CONSEQUENCE
1.________________________	1.________________________
2.________________________	2.________________________
3.________________________	3.________________________
4.________________________	4.________________________

Possible follow-up activities-

Have students list choices - then place themselves on an environmental, legal continuum.

Rank consequences in terms of how many people affected, cost, legal, harm to environment.

IDENTIFY ENERGY ACTIVITIES

Have students list (brainstorm) all their activities which use energy. Select 10 or more activities and place into a pattern grid similar to the one which follows:

Energy Activities
Grade 3
Packet "B"
Master #6
2.4

PATTERNS GRID

What procedures do you follow about this activity?	**Is it a pattern?**		**Is it done out of**			**Do you prize feel good about your answers?**		
	Yes	**No**	**Compulsion**	**Habit**	**Free Choice**	**Yes**	**No**	**???**
1. Taking showers or baths?								
2. Using the escalator or stairs?								
3. How you brush your teeth?								
4. Watching movies on TV?								
5. Type of sports activities?								
6. Turning off lights when not in use?								
7. Riding in a car to school?								
8. Using paper wisely?								
9. Using your leisure (free) time?								
0. How high the thermostat in your house is set?								
1. Wearing warm clothes in cold weather?								

INDUSTRIAL COMMUNICATIONS CURRICULUM

ATTITUDE INVENTORY

These questions are different from the usual school questions. They are about your attitude and have no right or wrong answers. You are not to put your name on the answer sheet and no one will know what your answers are. Read the statements carefully and answer all statements on the answer sheet.

1. In the communications class the role of printing in the total industrial communications process is shown.
2. Physical education is more fun than communications.
3. Communications is an important part of industry today.
4. This communications class is a lot of nonsense.
5. The communications course will help me in my future career choice.
6. I feel comfortable in the communications class.
7. I do not like to get my hands messy.
8. Working with ones hands is an undesirable characteristic of the occupations in communications.
9. I like to work with communications systems.
10. I understand and appreciate the value of simple communications systems.
11. The communication classes have helped me to think about my future.
12. Communications courses should not emphasize the relationships of drafting, printing and photography.
13. Safety need not be emphasize in communication classes because of the limited number of machines used.
14. Communications classes are more fun than building products in the materials and processes classes.
15. Communication systems do not make use of power and energy sources.
16. Communications systems of today are essential factors in our present standard of living.
17. In the communications class the role of drafting and design is shown as a part of the industrial communication system.

18. Eye appeal and design do not belong in the study of communications.

19. I prefer to work as a group member rather than individually in communication classes.

20. I would rather have the communication class taught by the lecture-demonstration method as compared to student activities.

21. Communication classes are an important part of school work.

22. Talking about communication systems is something I like to do.

23. I understand the industrial communications system.

24. I will probably enroll in a more specific communication course such as printing, drafting or photography in the future.

ATTITUDE INVENTORY ANSWER SHEET

DATE________________HOUR____________CLASS____________TEACHER______________

Instructions:

Circle the"yes" response if you agree with the statement; circle the "no" response if you disagree with the statement; circle the "undecided" if you are not sure how you feel.

1.	No	Undecided	Yes	13.	No	Undecided	Yes
2.	No	Undecided	Yes	14.	No	Undecided	Yes
3.	No	Undecided	Yes	15.	No	Undecided	Yes
4.	No	Undecided	Yes	16.	No	Undecided	Yes
5.	No	Undecided	Yes	17.	No	Undecided	Yes
6.	No	Undecided	Yes	18.	No	Undecided	Yes
7.	No	Undecided	Yes	19.	No	Undecided	Yes
8.	No	Undecided	Yes	20.	No	Undecided	Yes
9.	No	Undecided	Yes	21.	No	Undecided	Yes
10.	No	Undecided	Yes	22.	No	Undecided	Yes
11.	No	Undecided	Yes	23.	No	Undecided	Yes
12.	No	Undecided	Yes	24.	No	Undecided	Yes

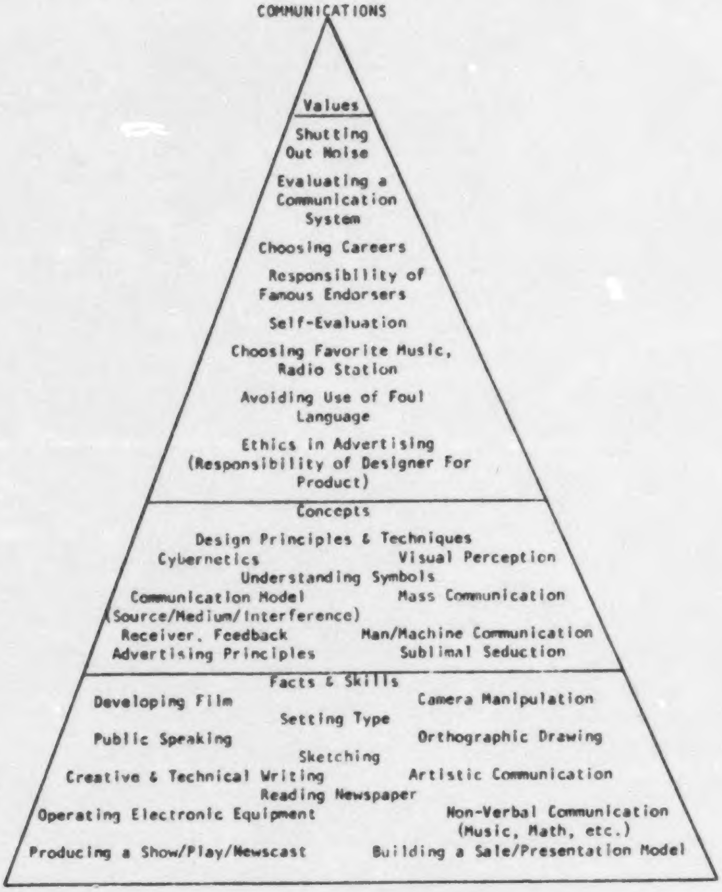
KEY FOR EVALUATING ATTITUDE INVENTORY

The following statements should be considered positive with a "yes" response:

1,3,5,6,9,10,11,14,16,17,19,21,22,23, and 24

The following statements should be considered positive with a "no" response:

2,4,7,8,12,13,15,18, and 20


COMMUNICATIONS
Values
Shutting Out Noise
Evaluating a Communication System
Choosing Careers
Responsibility of Famous Endorsers
Self-Evaluation
Choosing Favorite Music, Radio Station
Avoiding Use of Foul Language
Ethics in Advertising (Responsibility of Designer For Product)
Concepts
Design Principles & Techniques
Cybernetics
Visual Perception
Understanding Symbols
Communication Model (Source/Medium/Interference)
Mass Communication
Receiver, Feedback
Man/Machine Communication
Advertising Principles
Sublimal Seduction
Facts & Skills
Developing Film
Camera Manipulation
Setting Type
Public Speaking
Orthographic Drawing
Sketching
Creative & Technical Writing
Artistic Communication
Reading Newspaper
Operating Electronic Equipment
Non-Verbal Communication (Music, Math, etc.)
Producing a Show/Play/Newscast
Building a Sale/Presentation Model

The Values strategies which follow are samples which can be used by the teacher in several different content areas. They may be used as is, adopted by the teacher, or used as models to develop other strategies.

VALUES VOTING - ADVERTISING

How many of you have ever been fooled by an ad?

How many of you have ever been turned off by an ad?

How many of you have seen any good ads?

How many of you have ever refused to buy a product because you disliked an advertisement?

How many of you have seen an ad which uses a good looking man or woman to attract you to a product?

How many think government should restrict advertising of alcohol and tobacco products?

How many of you have ever bought a product because a famous person recommended it on an ad?

How many of you have ever felt mad because a television show was disrupted by a commercial?

Has a commercial ever made you laugh?

Rich and Vir[illegible]nia Peter

TEACHER PLAN SHEET

SAMPLE TOPIC: Communications

SUB-TOPICS: Graphic Arts - Design & Layout - Advertising

ACADEMIC INQUIRY		VALUES INQUIRY	
1. What is design & layout?	1. What effect does design & layout have on advertising?	1. What are some ads you consider to be effective?	1. What responsibility does the designer have for the content of an ad?
2. What are the components of design? (rhythm, balance, color, etc.)	2. What makes an ad effective?	2. What ads do you dislike? What don't you like about them? How can they be improved?	2. Would you design an ad for a product you do not think should be sold? (unsafe, immoral, health hazard, etc.)
3. What steps are followed in developing a finished layout? (thumbnail, rough sketch, etc.)	3. What is the relationship between typography and other design components?	3. Have you ever designed an advertisement?	3. Does everything portrayed in an ad have to be true?
4. What are characteristics of an effective ad?	4. What implications of psychology should be considered in good design & layout?	4. Bring some ads to class and critique them from the standpoint of good design & layout?	4. Do you think good products have better quality ads?

STUDENT ASSIGNMENT: Design an ad for a product that you like.
Write a statement about why you like the product.
Write a statement about why your ad will help sell the product.

ALTERNATIVE & CONSEQUENCES SEARCH

1. Select a problem or conflict you would like to research. Describe briefly the nature of the problem.______________________________

2. Utilize the response grid to list possible solutions together with positive and negative consequences of each:

	SOLUTION	POSITIVE CONSEQUENCES	NEGATIVE CONSEQUENCES
A.			
B.			
C.			
D.			

3. Rank order the solutions from most desirable to least desirable and be able to defend your choices. Rank order individually and then attempt to get group concensus.

4. (Alternate values clarification techniques)

----voting on solutions

----continuum

----forced choice

----I learned that.......

TECHNICAL DRAWING SELF-EVALUATION

Complete an evaluation sheet and turn in with each drawing that you complete. Rate your drawing each of the following criteria (0 to 5 points each).

	Student	Teacher
I. General Appearance	_____	_____
II. Accuracy and Position of Views	_____	_____
III. Accuracy and Placing of Dimensions	_____	_____
IV. Lettering, Arrowheads, and Notes	_____	_____
V. Line Quality	_____	_____

VICA ACHIEVEMENT PROGRAM

HOW TO USE THIS GUIDE

This guide is intended to be just that....a guide. It is a companion to the VICA Leadership Handbook*. A description of the Vocational Initiative and Club Achievement Program and the requirements of the program are contained in the handbook. This guide simply outlines suggestions for the teacher and the student that will help you to use the Achievement Program successfully.

The section entitled "To the Teacher" lists ten suggested steps to success and includes suggested application forms, rating sheets, and order forms. Any teacher may find his own steps to success and should attempt to improve on the ten listed in this guide. Also, the teacher will want to review the "Suggested Activities" column in the "Requirements, Activities, and Resources" section of this guide. This column gives ideas of activities that will meet the requirements of the Achievement Program

The sections entitled "To the VICA Member" and "Requirements, Activities, and Resources" may be separated from the guide and used by the student as a workbook. Of course, the Vocational Industrial Club Advisory Council (VICAC) and the instructor must determine those activities that are required for each step and notify the student. Only those resources that are included in the Achievement Program Reference Library are listed in the resource column. However, each local VICA club will want to add to these resources.

* Note: A complete copy of this resource is available from the VICA Executive Secretary, Wisconsin State Department of Public Instruction.

TO THE TEACHER

INTRODUCTION

This section of the Achievement Program Guide is designed to provide you, the teacher, with ideas that will help in the development of the Vocational Initiative and Club Achievement Program.

The Achievement Program should be thought of as a teaching tool and motivational device. It is not intended to supersede present educational objectives, but to assist in achieving them. The Achievement Program is a motivational device because evaluation by labor and management, and recognition of student achievement by labor and management, are central to its operation. Using the Achievement Program, the teacher and the Vocational Industrial Club Advisory Council (VICAC) can plan together for the orderly progression, evaluation, and reward of students, within already determined course objectives.

Direct evaluation of students by industry personnel is not only a motivating factor for the student, but also for the industry personnel themselves. They like student contact! With motivated students and motivated industry help, as a teacher, you can't lose.

TEN STEPS TO SUCCESS

The success or failure of the Achievement Program is dependent (like anything else in the classroom) upon the teacher. Perhaps this step-by-step procedure will help you to achieve success in your program.

1. Form a VICA Club or club section.
2. Be thoroughly familiar with the Achievement Program.
3. Form a Vocational Industrial Club Advisory Council (VICAC).
4. Order Achievement Program materials.
5. Hold exploratory meeting with VICAC to gain their support.
6. Gain support of VICA members.
7. Determine, with VICAC, specific Achievement Program activities for each requirement.
8. Assist students in completing activities.
9. Assist VICAC in the evaluation process.
10. Present awards.

STEP 1 - FORM A VICA CLUB OR CLUB SECTION

The Vocational Initiative and Club Achievement Program is a VICA program. Needless to say, before you can successfully operate an achievement program, you must have an organized VICA club.

STEP 2 - BE THOROUGHLY FAMILIAR WITH THE ACHIEVEMENT PROGRAM

The teacher must obtain all available materials on the Achievement Program and formulate a tentative plan to put the Achievement Program in motion. He must be thoroughly familiar with all aspects of the program and have a knowledge of the Leadership Handbook and this guide. The teacher must also acquaint the club executive council and the school administration with the program.

STEP 3 - FORM A VICAC

The Vocational Initiative and Club Achievement Program is administered by any nationally chartered local Vocational Industrial Club. However, the administration of this activity is under the direct supervision of a local Vocational Industrial Club Advisory Council (VICAC). The evaluation of the student, his records, skill performance and any other required work will be done by his local Vocational Industrial Club Advisory Council (VICAC). The teacher or instructor of the training program may make recommendations to the VICAC. However, the VICAC makes all decisions on degree promotions. This is done through a system of evaluation and interviews by VICAC as described in the Leadership Handbook.

The Vocational Industrial Club Advisory Council is made up of local representatives from management, labor, and education. Most local training programs have existing "craft committees" which may be used as the Vocational Industrial Club Advisory Council to administer this program, providing they have substantial industry representation.

Local club officers, instructors, supervisors, and administrators may serve as ex officio members of the Advisory Council. Club officers may serve as ex officio members only if they have achieved at least two classifications higher than those for whom evaluation is being made and only if appointed by the Council.

THE ACHIEVEMENT PROGRAM CANNOT WORK WITHOUT AN ADVISORY COUNCIL. In the eyes of the student, it is VICAC that makes the program creditable. Without industry evaluation and industry recognition, the program is meaningless. According to the American Vocational Association, 37 states and territories require the use of local advisory committees in their state plans. Fifteen states "strongly encourage" the use of local advisory councils. Advisory committees are often called upon to review course outlines, equipment lists, budgets, etc. year after year without, however, performing any real evaluation of vocational programs or students.

Direct evaluation of the student is true evaluation of the training program. Direct student contact is challenging to industrial personnel. While some teachers and administrators are hesitant to ask for direct evaluation, experience has shown that a program can benefit greatly through direct evaluation.

DON'T BE AFRAID TO ASK--THEY LOVE IT!! It is only when advisory councils are asked to perform mundane tasks year after year that they lose interest. You can be sure that this doesn't happen if you carefully plan advisory council responsibilities.

Guidelines for organizing advisory councils

☑ Seek broad representation on the council from the occupational community which your training program serves including:

1. Employers
2. Employees
3. Organized labor representatives
4. Owner-operator representatives
5. Trade and professional association representatives
6. Leadership experts such as: military service personnel, Jaycees representatives, Toastmasters representatives, etc.

☑ Representatives from organized groups such as labor unions or trade associations should nominate members for the advisory council in order that they will be truly representative.

☑ The advisory councils must not be dominated by organizations. The council should be balanced with those who represent organized groups and those who are acting individually.

☑ Before official invitation is given to any person to serve on the advisory council, the role of the advisory council as related to the training program and the Achievement Program should be explained to him.

☑ An official letter of invitation to serve on the advisory council should come from the district school superintendent, college president, or some other appropriate school administrator. This adds dignity and makes the appointment official. It also informs the administrator of community involvement in your program.

☑ The official letter of invitation should be specific, including the length of service term, the purposes of the council, and school district policy relating to the advisory council.

☑ The advisory council must be operated according to good organizational principles. That is, officers should be elected, minutes must be kept and used, agendas should be established, and policies should be written. The program teacher often serves as secretary to the council.

☑ Involve the school administration in the invitation process as well as in all meetings and decisions.

The teacher should visit a professional library for additional details on forming an effective advisory council. There are many available information resources.

The important fact is that an advisory council be formed and soon!

STEP 4 - ORDER ACHIEVEMENT PROGRAM MATERIALS

An Achievement Program materials kit including sample wearing apparel, an order blank for the Achievement Program awards, a leaflet describing a program in action, and a poster has been assembled and is available from the National VICA Office:

TO: National VICA
P.O. Box 3000
Leesburg, VA 22075

Also available is a reference library including guides to parliamentary procedure, public relations, letter writing, and government. Also included are biographies on American Revolutionary Period figures. A slide narration explaining the Achievement Program may be rented.

The purpose of these materials is to provide sample items which will create enthusiasm for the Achievement Program. USE THEM!

STEP 5 - HOLD EXPLORATORY MEETING WITH VICAC TO GAIN THEIR SUPPORT

The success or failure of the Vocational Initiative and Club Achievement Program could depend upon the first meeting of VICAC. Your purpose in this meeting is first, to explain the Achievement Program to the council and, second, to solicit their support for the program. Below are some ideas for your first meeting:

a. Follow the principles of good organization as outlined in Step 3.

b. If this is a new advisory council, considerable time must be spent in acquainting the members with the school, vocational training programs, and your instructional program objectives before the Achievement Program and VICA can be explained.

c. Use outstanding VICA members to introduce the council to VICA. They should emphasize:

1. VICA's purposes
2. VICA's programs
3. VICA's history
4. Special VICA activities
5. The role of labor and management in VICA

Be sure to use VICA's films, "VICA Going Places" and "Skills Build America," brochures, and other quality descriptive literature. These are available from the National VICA office.

d. Explain the Achievement Program. Provide each member with a Leadership Handbook. In explaining the Achievement Program, emphasize the following:

- The importance of the Achievement Program as a teaching tool and motivational device.
- The opportunity to evaluate the product of vocational education, the student.
- The two ladders of Achievement Program progress --skill development and leadership development.
- The values of a "well rounded student".
- The resources available to committees such as: the Achievement Program materials kit, reference library, and the Achievement Program Guide.
- How the degree process works, step-by-step as well as requirements and awards.
- That much evaluation of the student degree requirements will be done in advance of the interviews with VICAC. This is to alleviate fears on the part of the advisory council that they will be required to do large amounts of detailed student evaluation.
- The interview process and a suggested test procedure for each degree step.

e. Seek the initial reaction of the council. Solicit comments and discussion to determine areas of misinformation or fears.

f. Seek a commitment from the committee to serve as VICAC.

g. Set up a time for the next meeting at which time the council will establish specific standards for each step.

STEP 6 - GAIN SUPPORT OF VICA MEMBERS

Information about the Achievement Program can best be given to students by individual teachers and class (section) officers in individual instructional programs. This is true because the Achievement Program is part of the instructional program and is to be administered in class or as an extension of the classroom.

Use outstanding students to "plug" the program.

Show sample Achievement Program materials and awards.

In the first informational meeting emphasize:

- The Achievement Program is part of the training program.
- The Achievement Program will bring the student into direct labor-management contact.
- The degree awards are fast becoming symbols of excellence--credentials of skill and leadership training accepted by industry.

Explain in detail the step-by-step procedure for participation.

Seek reaction and discussion.

Seek a commitment from students to enroll in the program.

STEP 7 - DETERMINE, WITH VICAC, SPECIFIC ACHIEVEMENT PROGRAM ACTIVITIES FOR EACH REQUIREMENT

This is a critical point in the development of the Achievement Program. Until specific activities are determined, the program is vague and difficult to understand. This guide suggests one or more activities for each requirement. However, it is the job of VICAC and the instructor to determine which activities the student must accomplish to pass each step.

The general guide for establishing activities is: the activities should be difficult enough to be a challenge, but not too difficult to accomplish. It is at this point that VICAC must use its ingenuity to spell out in detail the activities that will meet the requirements of the Achievement Program.

Leadership - Citizenship Side (VICA Leader Degree)

On the Leadership side of the Achievement Program, the committee may wish to do one of four things:

1) Assign from this guide the suggested activities for each requirement.
2) Allow the student to select from this guide the several suggested activities for each requirement.
3) Spell out other specific activities not suggested in the guide. Don't overlook special local community activities that will meet the spirit of the requirement.
4) A combination of any of the above.

Occupational Development Side (VICA Industrial Degree)

On the occupational development side of the Achievement Program, selection of activities to satisfy requirements should blend with the already existing course of study. Requirements and activities should be designed to span in time the entire length of time of the course of study.

"Professionalism" activities should be selected in a similar manner as described above for the VICA Leader Degree.

"Technical Knowledge" activities will be directly dependent on the course of study in the following manner:

1) Divide the course of study into approximately four equal parts in terms of time, one quarter for each Achievment Program step.
2) Use Assignment Sheets 2-5 from each step to describe what occupational tools or equipment, materials, theories, and terminology are required for each step.
3) Determine what demonstration or proof of knowledge you will require from a student to determine if he has mastered the tools, theories, and terminology that VICAC has required for each step. The required proof can also be listed on the assignment sheets.

In this way the student will have no doubt as to what technical knowledge is required of him for each step.

"Skill Proficiency" activities can be determined in a similar manner as the "Technical Knowledge" activities above and should be listed on Assignment Sheet #6 for each step.

The "Work Habits and Personal Traits" and "Training Records" sections are basic rating scale procedures. However, the council may wish to consider the suggested record sheets and either revise to their own specifications or substitute rating sheets that have been developed locally. The committee and the instructor should come to an understanding on the meaning of the words on the rating sheets so that evaluation of students will be fair.

Important !

The importance of establishing specific activities for each Achievement Program requirement cannot be overemphasized. The student must know exactly which activities are required of him for each step. Also, the council must know exactly what is required for fair evaluation of the participant.

STEP 8 - ASSIST STUDENTS IN COMPLETING ACTIVITIES

Assistance to a student in accomplishing Achievement Program requirements falls into three broad categories: (a) helping the student to understand the program and what is required of him (b) providing resources and, (c) providing encouragement.

a. The Achievement Program is a complicated program and must be interpreted to students at the beginning of the program. The student then needs a constant flow of information on requirements he must accomplish.

b. As in any teaching process, there must be adequate resources on which the student can draw to accomplish program requirements. An idea: Some schools have formed a student Achievement Program professional committee which has the responsibility of gathering materials for a resource library. This is a help to the teacher and is an excellent leadership activity. Below is a list of some resources your professional committee may wish to assemble.

- A local resource packet to include material on the school's organizational structure, the school system structure, local club constitution, a club and section officer list, congressional district information, and even a subscription to the local newspaper.
- A state resource packet which could contain information on the state VICA association including state structure, state constitution, calendar of events, and a list of state service projects. It should also contain information on state government such as organizational structure, how laws are passed, and the state department of education structure.
- A national resource library for the Achievement Program has been assembled and is available from the National VICA Office.

In addition to these materials, the professional committee should have available other materials such as the Occupational Outlook Handbook, professional journals relating to the occupations being learned, and leadership training materials on such subjects as parliamentary procedure and public speaking.

Of course, it is the teacher's responsibility to provide occupational training materials that will satisfy the requirements of the industrial degree side.

c. Like any other long-range project, the Achievement Program requires that the teacher provide the student with periodic reinforcement as the student progresses. The student must receive recognition and praise for his accomplishments. As he progresses, awards must be given. Long delays between the time of accomplishment and the receipt of awards will reduce the motivational effect. Awards must be prompt and meaningful.

STEP 9 - ASSIST VICAC IN THE EVALUATION PROCESS

In evaluating the student, there must be a proper balance between teacher evaluation and VICAC evaluation. VICAC must not simply act as a "rubber stamp" committee to the teacher's recommendations. However, VICAC must not be encumbered with the task of observation of every detail of the activities. A system must be devised to accomplish this. Below are some suggestions:

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a. Prior to the VICAC interview of the student, the teacher should evaluate each student's accomplishments.

b. Testing, either objective or practical, should be administered by the instructor.

c. The evidence of achievement including tests, the teacher's recommendations, and the student's verification of accomplishment are then presented to VICAC for evaluation.

d. The council will evaluate the material presented to them and "spot check" with their own evaluation. The "spot checking" may take the form of:

- oral questioning in the personal interview,
- actual occupational skill demonstration, or
- actual leadership skill demonstration

These steps provide proper balance between teacher evaluation and VICAC evaluation.

The Interview

The interview of the student by VICAC is the final procedure in determining if a student passes any step. It must be well-planned and impressive to the student and the council. Before the interview begins, the following materials should be in front of the council.

1) Application for interview
2) Copies of all record and assignment sheets
3) Verification materials prepared by the student for each requirement
4) Test results related to the step
5) Materials and tools if occupational skill or leadership demonstrations are required
6) The interview rating scale

There should be a pre-interview period during which the council can analyze materials. Following the interview, there should be time for the council to compare notes and for the teacher to provide his evaluation.

The student should be told immediately by the council of his success or failure. Awards can be presented at a later, more appropriate, time.

STEP 10 - PRESENT AWARDS

For each step, there are appropriate symbols of achievement that must be presented to the student when he has successfully passed (see Leadership Handbook, inside back cover). The presentation of these symbols must be impressive, prompt, recognized by his peers, recognized by the community, and awarded by industry leaders.

It is not enough to simply give a student these awards; a special time for doing so should be set aside. Below are some examples of appropriate occasions for making achievement awards:

- School assemblies
- Presentation by industry representatives to occupational class
- In conjunction with a civic club meeting
- At a sponsor's (trade association, labor union, corporation) meeting

Publicity will enhance the value of the awards.

Awards are designed to motivate. Waiting too long to give the award after the accomplishment is to lose the motivating effect. Therefore, patches, pins, and other awards should be on hand; they should be ordered ahead of time. (See Balfour Supply Service Catalog. Use VICA Forms 28 and 29 to order top awards.)

Extra incentives should be planned. A windbreaker could be awarded, for example, when a student has achieved either the VICA Leader or Industrial Degree or a membership pin could be presented when a student has completed two levels of the program.

The awards for the Achievement Program are inexpensive. However, if large numbers of students become involved, financing must be planned. Below are three alternatives:

a. Finance from club treasury.

b. Finance from school general fund. This is justifiable on the basis that the Achievement Program is a motivational, instructional tool.

c. Seek VICAC financing. Often the VICAC wishes to provide all awards and will establish a fund for that purpose.

RESOURCES:

Ready access to securing resources in developing an industrial education program are invaluable.

The resources included in the following section of the handbook include guides, texts, journals, educational games and simulations, companies and people.

The resources that are included are not meant to be all inclusive but rather were selected to get the curriculum developer off and running.

ARTICLES

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2. Dreischmeiers, W. B. Teaching for a Change in Attitude: Values Clarification. Agricultural Education Magazine, December 1974, 129-130
3. Genge, Betty Anne & John Santosuosso. Values Clarification for Ecology. Science Teacher, February 1974, 41 (2), 37-39
4. Kohlbert, Lawrence. The Relationship of Moral Education to the Broader Field of Values Education. In J. Meyer, B. Burnham, &
5. J. Cholvat (Eds.), Values Education: Theory, Practice, Problems and Prospects. Waterloo, Ontario: Wilfred Laurier University Press, 1975
6. Lockwood, Alan. A Critical View of Values Clarification. Teachers College Record, September 1975, 77 (1), 35-50
7. Peter, Richard and Virginia. Values Clarification Skills: Helping Problem Solvers to Become Decision Makers. Man, Society and Technology November, 1978, 38 (2), 28-31
8. Schwarzberg, Helene. Let's Develop Survival Skills. School Shop September, 1977 33-35
9. Simon, Sidney B. and Marie Hartwell. Personal Growth Through Advertising. Colloquy, December, 1972
10. Stewart, John S. Clarifying Values Clarification. Phi Delta Kappan, June 1975, 56 (10), 684-688
11. Thal, Helen M. and Melinda Holcombe. Value Clarification. American Vocational Journal, December 1973, 48 (9), 25-29

RESOURCES

Books

1. Barber, William, et. al. The Affective Domain. Washington, D. C: Gryphon House, 1972.
2. Bellanca, James A. Values and the Search for Self Washington, D. C. NEA 1975
3. Canfield, Jack and Harold C. Wells 100 Ways to Enhance Self Concept in the Classroom, La Jolla, Ca. NTL/Learning Resources Co.
4. Hall, Brian. Values Clarification as a Learning Process: A Guidebook. Paramus, NJ: Paulist Press, 1973
5. __________. Values Clarification as a Learning Process: A Sourcebook. Paramus, NJ: Paulist Press, 1973
6. Harmin, Merril, Howard Kirschenbaum and Sidney Simon. Clarifying Values Through Subject Matter. Minneapolis, MN: Winston Press 1973
7. Hawley, Robert, Sidney Simon and D. D. Britton. Composition for Personal Growth: Values Clarification Through Writing. New York: Hart Publishers, 1973
8. Hawley, Robert. Value Exploration Through Role Playing. New York: Hart Publishing, 1975
9. Hawley, Robert & Isabel Hawley. Human Values in the Classroom: A Handbook for Teachers. New York: Hart Publishing, 1975
10. Hillestad, Robert. Values Clarification in the Field of Industrial Arts (Microfiche) Menomonie, WI:Pierce Library UW-Stout
11. Howe, Leland & Mary Martha Howe. Personalizing Education: Value Clarification and Beyond. New York: Hart Publishing, 1975

12. Kirschenbaum, Howard *Advanced Values Clarification* La Jolla, Ca University Associates, 1977

13. Kirschenbaum, Howard and Sidney B. Simon (eds.) *Reading in Values Clarification*, Minneapolis, Winston Press 1973

14. Knicker, Charles P. *You and Values Education* Columbus, Ohio: Charles B. Merrill Pub. C. 1977

15. National Education Association *Values Techniques and Concepts* Washington, D.C.; NEA 1976

16. Norgel, John *The Development of Values Clarification Strategies for the Enterprise System* (microfiche) Menomonie, WI Pierce Library UW-Stout

17. Purpel, David and Kevin Ryan *Moral Education It Comes with the Territory* Berkeley, CA McCutchan 1976

18. Pfeiffer, J. William and John E. Jones. *A Handbook of Structured Experiences for Human Relations Training* La Jolla, Ca University Associates

19. Read, Donald A. and Sidney Simon. *Humanistic Education Sourcebook* Engelwood Cliffs, New Jersey Prentic Hall 1975

20. Raths, Louis Merrill Harmin and Sidney B. Simon, *Values and Teaching*, Columbus, Ohio: Charles E. Merrill, 1966

21. Rokeach, Milton, *The Nature of Human Values* New York: Free Press, 1973

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23. Silver, Michael. *Values Education* Washington D.C.: NEA 1976

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27. Superka, Douglas et al Values Education Sourcebook: Conceptual Approaches, Materials Analysis, and an Annotated Bibleography Boulder, Colo: Social Science Education Consortium, Inc.

28. Volkmar, Cara B. Et al. Values in the Classroom Columbus, Ohio: Charles E. Merrill 1977

29. Zuckerman, David and Robert Horn The Guide to Simulation/Games Lexington, Mass: Information Resources

FILMS:

Air is for Breathing, Shell Film Shell Film Library, 1433 Sadlier Cir W. Dr. Indianapolis, Ind. 46239

The River Must Live, Shell Film

Industrial Arts: A Safe Shop, Bureau of AV Instruction University of Wisconsin Extension, Madison

School Shop Safety, BAVI, UW Extension, Madison

Work, Work, Work, BAVI

Workers Who Build Houses, BAVI

America: On the Edge of Abundance, BAVI

Analyzing Advertising, BAVI

Apptitudes and Occupations, BAVI

Autos, Autos, Everywhere, BAVI

Basic Elements of Production, BAVI

Basic Job Skills: Following Instructions, BAVI

Basic Job Skills: Handling Criticism, BAVI

Career Awareness: Construction Industry, BAVI

Communication: The Nonverbal Agenda, BAVI

Conservation: To Save our Environment, BAVI

Conserving Our Forests Today, BAVI

Consumer Power: Advertising, BAVI

Craftsmen, BAVI

Danish Design, BAVI

Design for Living, BAVI

High Energy Efficiency - An Imperative for Tomorrow, BAVI

Industries of the Future, BAVI

Job Interview: Three Young Men, BAVI

Jobs & Advancements: On the Move, BAVI

Man & the Machine: A Romance Going Up in Smoke, BAVI

Man Builds, Man Destroys: Through the Mill Once More, BAVI

Man's Impact on His Environment, BAVI

Man's Effect on the Environment, BAVI

Why Study Industrial Arts, BAVI

The Craftsman, Educational Film Locator, R.R. Bowker Company, New York & London

Value Ststems Techniques, Educational Film Locator

Industry's Perenial Problem, Educational Film Locator

Energy: A Matter of Choices, Educational Film Locator

Energy: Can't Do Without It, Educational Film Locator

The Energy Crunch: The Nuclear Dilemma,Educational Film Locator

Energy Crisis: The Nuclear Alternative, Educational Film Locator

Communicating Management's Point of View, Educational Film Locator

FREE FILMS:

Standards for Excellence, Association Films, Inc., 6420 West Lake Street,
Minneapolis, MN 55426

The Balancing Act, Association Fims, Inc.

Still Stand The Tall Trees, Association Films, Inc.

Why Not a Woman, Association Films, Inc.

The Workmanship Myth, Modern Talking Picture Service, 5000 Park St. N,
St. Petersburg, Florida 33709

If We're So Good... Why Aren't We Better? NEA, Audio-visual Studios,
1201 16th St. NW, Washington, D.C.

DUPLICATING MASTERS:

Technology and the American Enterprise, Gould Inc. 10 Gould Center, Rolling Meadows, IL 60008

LAPS:

Human Relations: LAPS-HR, by the Interstate Distributive Education Curriculum Consortium
Cost $36.00 in loose leaf format
Order: IDECC National Office, 1885 Neil Avenue 119 Townshend Hall
Columbus, Ohio 43210

NOTE:

New materials are being developed to supplement these resources. These items will be available through the IDECC National Office. A list follows.

Secondary Exploration of Technology Series
(Power, Communications, Materials & Processes)
School of Technology
Kansas State College
Pittsburg, Kansas 66762

Energy Conservation Activity Packets, Iowa Department of Public Instruction

Designing for the Future
Xerox Education Publications
Education Center
Columbus, Ohio 43216

Fitting Machines to Man - Xerox Education Publications

KITS:

Values In the Classroom by Cara B. Volkmor, Anne Langstaff Pasanella, Louis E. Ralhs, Charles E. Merrill Publishing Co. Copyright 1977
6 tapes complete with paperback text - these resources provide an excellent backgroung for the industrial educator interested in values in the classroom.

NEA Edupak for Values Eduation - copyright 1976, National Education Association
Filmstrips, cassette tapes, printed material

Tape Programs:

"I Can" by Zig Ziglar

"How to Stay Motivated" by Zig Ziglar

Positive Mental Attitude Series from "Success Unlimited"

Success System That Never Fails	#8002
Nightingale on Motivation	#8000
Diamonds and Power	#8004
Think and Grow Rich	#8001
Zig at the Rally	#8003
Schuller and Peale	#8005

Motivational Series by Dr. Peale and others

Listen to Life I, II, and III	#8020, 8021, 8022
Nightengale's Stimuli I and II	#8023, 8024
Beyond the Bible	#8025

Encouragement Series

Time and Your Mind	#8043
Achievement and Problems	#8044
New Ideas from Nightingale I,II, III	#8040, 8041, 8042
Destiny and Compensation	#8045

Sales Skills Series

Nightengale's K.I.S.S.	
Keep It Simple Salesman I,II,III	#8060, 8061, 8062
Dottie Walters on Selling	#8065
Odiorne on Selling	
Management by Objectives I,II	#8063, 8064
Cavett Robert on Selling	#8066

TAPES:

The Success System that Never Fails by W. Clement Stone
How to Get Control of Your Time and Your Life by Alan Lakein
Your Four Minute Miles by Clarence Blasier
Acres of Diamonds by Dr. Russell Conwell
As A Man Thinketh by James Allen
Where to Find The Secrets of Success by "Bill" W.H.M. Stover
The Other Wise Man by Henry Van Dyke
Who Cares About Me? by Bill Sands
Compensation by Ralph Waldo Emerson
Rallies by Norman Vincent Peale and Robert Schuller